STN- Structure Search 4/13/06

10/524,151

=> d ibib abs hitstr 1-56

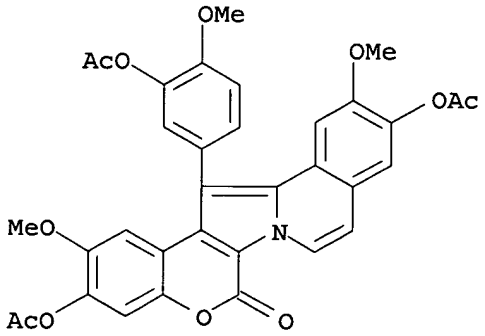
L4 ANSWER 1 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:100738 CAPLUS
DOCUMENT NUMBER: 144:198849
TITLE: Novel dosage form comprising modified-release and immediate-release active ingredients
INVENTOR(S): Vaya, Navin; Karan, Rajesh Singh; Sadanand, Sunil; Gupta, Vinod Kumar
PATENT ASSIGNEE(S): India
SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of U.S. Ser. No. 630,446.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2006024365	A1	20060202	US 2005-134633		20050519
US 2004096499	A1	20040520	US 2003-630446		20030729
PRIORITY APPLN. INFO.:			IN 2002-MU697	A	20020805
			IN 2002-MU699	A	20020805
			IN 2003-MU80	A	20030122
			IN 2003-MU82	A	20030122
			US 2003-630446	A2	20030729

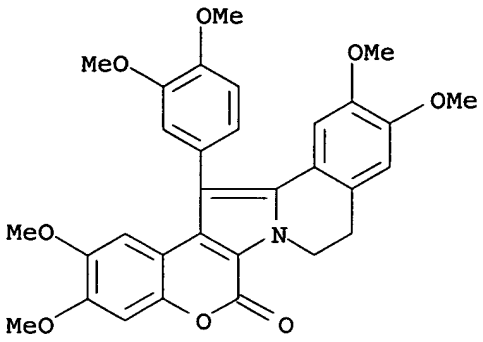
AB A dosage form comprising of a high dose, high solubility active ingredient as modified release and a low dose active ingredient as immediate release where the weight ratio of immediate release active ingredient and modified release active ingredient is from 1:10 to 1:15000 and the weight of modified release active ingredient per unit is from 500 mg to 1500 mg; a process for preparing the dosage form. Tablets containing 10 mg sodium pravastatin and 1000 mg niacin were prepared The release of sodium pravastatin after 24 h was 67.7%, and the release of niacin after 1 h was 84.1%.

IT **149355-77-1**, Lamellarin-N triacetate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel dosage form comprising modified-release and immediate-release active ingredients)

RN 149355-77-1 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-bis(acetyloxy)-14-[3-(acetyloxy)-4-methoxyphenyl]-2,12-dimethoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:13464 CAPLUS
DOCUMENT NUMBER: 144:101073



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Inventor 1

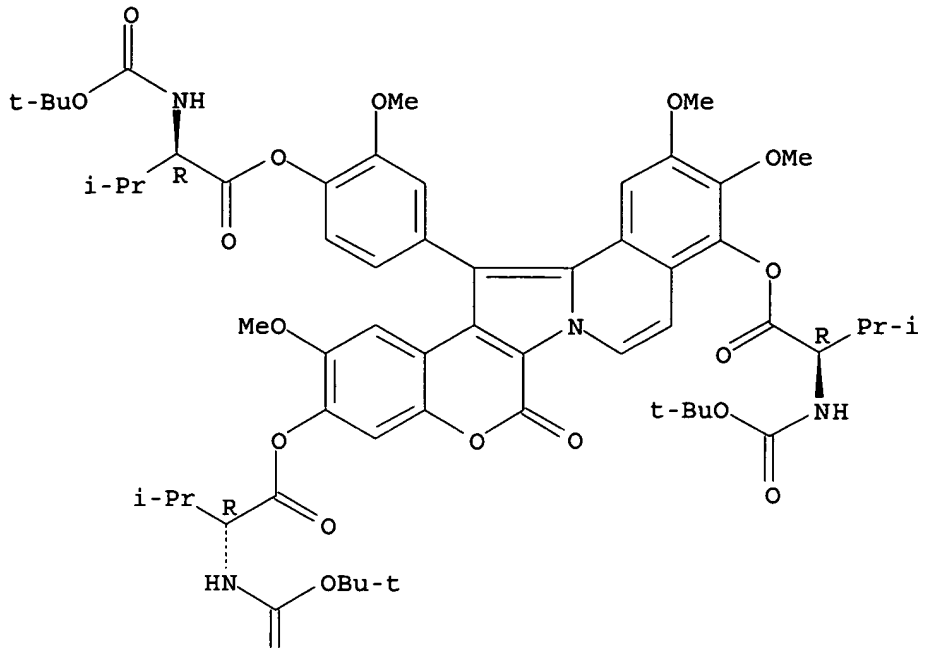
L4 ANSWER 21 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:143159 CAPLUS
DOCUMENT NUMBER: 140:199492
TITLE: Preparation and antitumor activity of analogs of lamellarins
INVENTOR(S): Bailly, Christian; Francesch Solloso, Andres; Mateo Urbano, Maria Cristina; Jimenez Guerrero, Jose Antonio; Pastor Del Castillo, Alfredo; Cuevas Marchante, Carmen
PATENT ASSIGNEE(S): Pharma Mar, S.A.U., Spain; Ruffles, Graham Keith
SOURCE: PCT Int. Appl., 222 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014917	A2	20040219	WO 2003-GB3541	20030813
WO 2004014917	A3	20040513		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493725	AA	20040219	CA 2003-2493725	20030813
AU 2003252997	A1	20040225	AU 2003-252997	20030813
EP 1551844	A2	20050713	EP 2003-784300	20030813
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005536529	T2	20051202	JP 2004-527072	20030813
NO 2005001282	A	20050511	NO 2005-1282	20050310

PRIORITY APPLN. INFO.:	GB 2002-18816	A	20020813
	WO 2003-GB3541	W	20030813

OTHER SOURCE(S): MARPAT 140:199492
GI

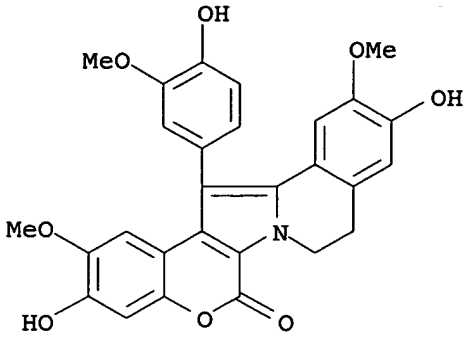
PAGE 1-A



PAGE 2-A

L4 ANSWER 22 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:885665 CAPLUS
DOCUMENT NUMBER: 140:156945
TITLE: Lamellarin D: A Novel Potent Inhibitor of Topoisomerase I
AUTHOR(S): Facompre, Michael; Tardy, Christelle; Bal-Mahieu, Christine; Colson, Pierre; Perez, Carlos; Manzanares, Ignacio; Cuevas, Carmen; Bailly, Christian
CORPORATE SOURCE: Institut National de la Sante et de la Recherche Medicale U-524 and Laboratoire de Pharmacologie Antitumorale du Centre Oscar Lambret, Lille, 59045, Fr.
SOURCE: Cancer Research (2003), 63(21), 7392-7399
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We report the identification and characterization of a novel potent inhibitor of DNA topoisomerase I: lamellarin D (LAM-D), initially isolated from a marine mollusk, Lamellaria sp., and subsequently identified from various ascidians. This alkaloid, which displays potent cytotoxic activities against multidrug-resistant tumor cell lines and is highly cytotoxic to prostate cancer cells, bears a 6H-[1]benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolinone pentacyclic planar chromophore, whereas its synthetic 5,6-dehydro analog, LAM-501, has a significantly tilted structure. DNA binding measurements by absorbance,



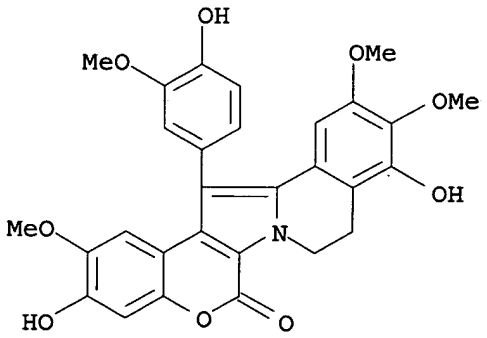
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:807792 CAPLUS
DOCUMENT NUMBER: 140:391166
TITLE: Product class 4: benzopyranones and benzopyranthiones
AUTHOR(S): Williams, A. C.; Camp, N.
CORPORATE SOURCE: Germany
SOURCE: Science of Synthesis (2003), 14, 347-638
CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

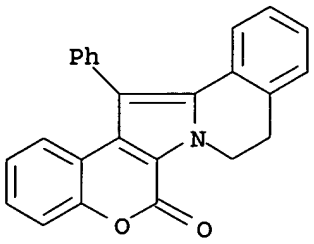
AB A review. Methods for preparing 2H-1-benzopyran-2-ones, 4H-1-benzopyran-4-ones, 1H-2-benzopyran-1-ones, 6H-dibenzo[b,d]pyran-6-ones, 9H-xanthenones and their corresponding thione analogs as well as 3H-2-benzopyran-3-ones are surveyed. Synthetic methods include ring closure, ring transformation, aromatization and substituent modification reactions.

IT **149378-56-3P 252861-27-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(review of preparation of benzopyranones and benzopyranthiones via ring closure, ring transformations, aromatization and substituent modifications)

RN 149378-56-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)

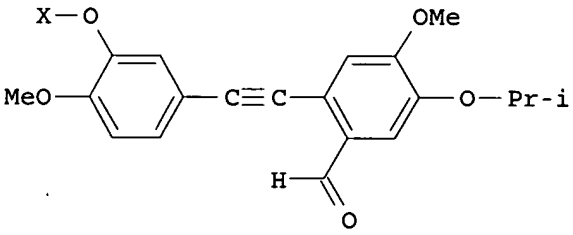


RN 252861-27-1 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-14-phenyl- (9CI) (CA INDEX NAME)

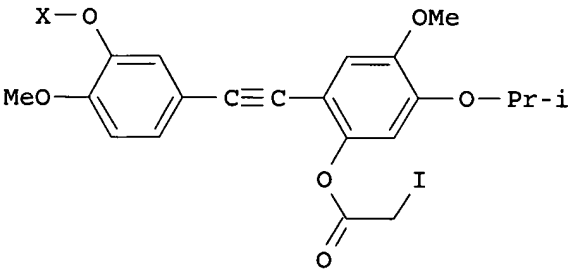


REFERENCE COUNT: 1083 THERE ARE 1083 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:545315 CAPLUS
DOCUMENT NUMBER: 139:246134
TITLE: Solid-Phase Total Synthesis of the Pentacyclic System Lamellarins U and L
AUTHOR(S): Cironi, Pablo; Manzanares, Ignacio; Albericio, Fernando; Alvarez, Mercedes
CORPORATE SOURCE: Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, Barcelona, 08028, Spain
SOURCE: Organic Letters (2003), 5(16), 2959-2962
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:246134
GI

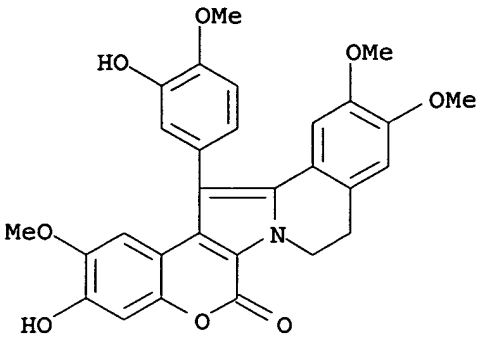


I

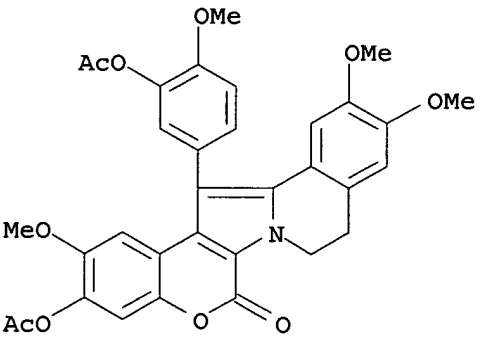


II

AB A total solid-phase synthesis of lamellarins U and L has been achieved. The conversion of an aldehyde group in bis(aryl)acetylene I (X = Merrifield resin) into a formate by a Baeyer-Villiger reaction and an intramol. [3+2] cycloaddn. of a 3,4-dihydroisoquinolinium salt, generated by N-alkylation of iodoacetate II with 3,4-dihydro-6,7-dimethoxyisoquinoline, over a triple bond comprise the key steps of the process. Each transformation has been controlled with the proper



RN 596111-78-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3-(acetyloxy)-14-[3-(acetyloxy)-4-methoxyphenyl]-8,9-dihydro-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



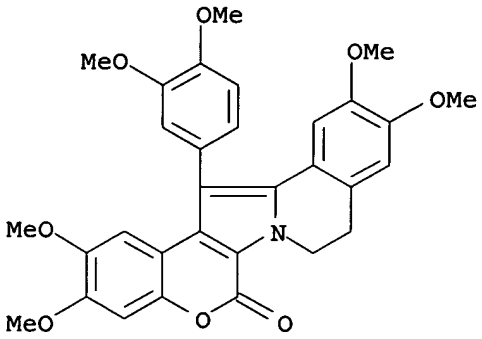
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:384380 CAPLUS
DOCUMENT NUMBER: 139:149792
TITLE: Short and flexible route to 3,4-diarylpyrrole marine alkaloids: syntheses of permethyl storniamide A, ningalin B, and lamellarin G trimethyl ether
AUTHOR(S): Iwao, Masatomo; Takeuchi, Toshiro; Fujikawa, Naotaka; Fukuda, Tsutomu; Ishibashi, Fumito
CORPORATE SOURCE: Faculty of Engineering, Department of Applied Chemistry, Nagasaki University, Nagasaki, 852-8521, Japan
SOURCE: Tetrahedron Letters (2003), 44(24), 4443-4446
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:149792
AB A highly efficient route to 3,4-diarylpyrrole marine alkaloids was developed using Hinsberg-type pyrrole synthesis and palladium-catalyzed Suzuki cross-coupling of the 3,4-dihydroxypyrrole bis-triflate derivs. as key reactions. Based on this approach, formal syntheses of permethyl storniamide A and ningalin B, and a total synthesis of lamellarin G tri-Me ether were achieved.
IT **181423-71-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,4-diarylpyrrole marine alkaloids from arylethylamines via Hinsberg pyrrole synthesis and Suzuki coupling and application to the syntheses of permethyl storniamide A, ningalin B, and lamellarin G tri-Me ether)

RN 181423-71-2 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-2,3,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:91107 CAPLUS

DOCUMENT NUMBER: 138:354129

TITLE: Further developments in the synthesis of lamellarin alkaloids via direct metal-halogen exchange

AUTHOR(S): Ploypradith, Poonsakdi; Jinaglueng, Wiyada; Pavaro, Chitkavee; Ruchirawat, Somsak

CORPORATE SOURCE: Chulabhorn Research Institute, Bangkok, 10210, Thailand

SOURCE: Tetrahedron Letters (2003), 44(7), 1363-1366
CODEN: TELEAY; ISSN: 0040-4039

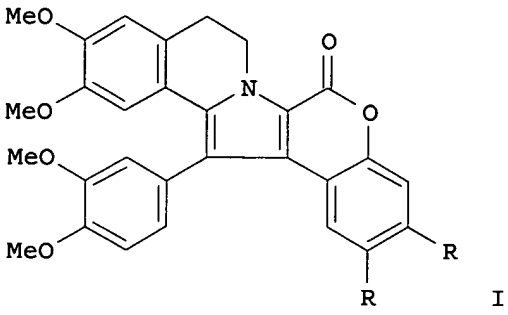
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:354129

GI



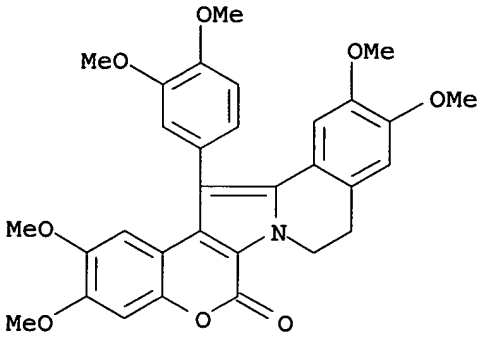
I

AB Direct metal-halogen exchange of 2-bromopyrrole carbonate derivs. with tert-butyllithium followed by the intramol. lactonization of the resulting 2-pyrrole anion onto the carbonate provided the corresponding lamellarins I (R = H; R = OMe) in moderate to good yield. The lamellarin framework

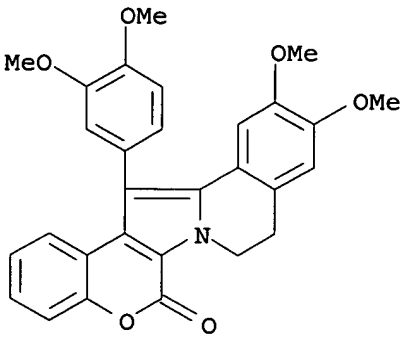
could be obtained from the direct metal-halogen exchange strategy in a 26-33% overall yield over 5-6 steps.

IT **181423-71-2P 332841-54-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of lamellarin alkaloids via direct metal-halogen exchange)

RN 181423-71-2 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-2,3,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



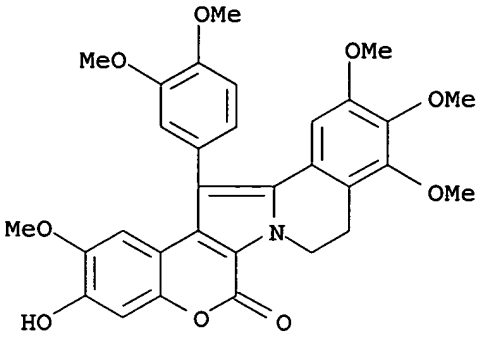
RN 332841-54-0 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-11,12-dimethoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:871898 CAPLUS
DOCUMENT NUMBER: 138:153700
TITLE: Studies toward the total synthesis of lamellarin I
AUTHOR(S): Parrish, Jay Pendleton
CORPORATE SOURCE: Univ. of South Florida, Tampa, FL, USA
SOURCE: (2001) 379 pp. Avail.: UMI, Order No. DA3041119
From: Diss. Abstr. Int., B 2002, 63(2), 807
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable
IT **149355-75-9P**, Lamellarin I
RL: PNU (Preparation, unclassified); PREP (Preparation)
(toward the total synthesis of lamellarin I)
RN 149355-75-9 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-3-hydroxy-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:583534 CAPLUS
DOCUMENT NUMBER: 137:370255
TITLE: Total synthesis and evaluation of lamellarin α 20-Sulfate analogues
AUTHOR(S): Ridley, Christian P.; Reddy, M. Venkata Rami; Rocha, Genalyn; Bushman, Frederic D.; Faulkner, D. John
CORPORATE SOURCE: Scripps Institution of Oceanography, University of California at San Diego, La Jolla, CA, 92093-0212, USA
SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(10), 3285-3290
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:370255

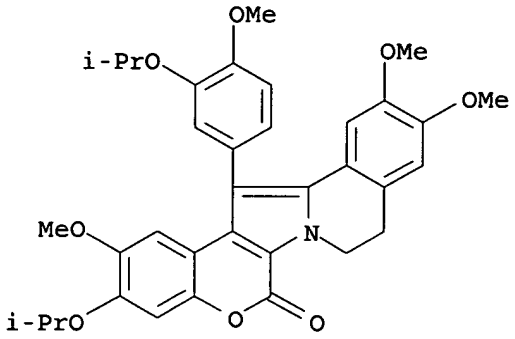
AB In order to explore the influence of sulfate groups on the bioactivity profiles of marine alkaloids of the lamellarin class, three such alkaloids, lamellarin α, lamellarin α 13,20-disulfate and lamellarin H, were synthesized and their activities against HIV-1 integrase and cancer cell lines were compared with those of lamellarin α 20-sulfate, which is a selective inhibitor of HIV-1 integrase. Lamellarin α does not inhibit HIV-1 integrase but shows moderate cytotoxicity with good cell line selectivity. Lamellarin α 13,20-disulfate is a moderate inhibitor of both HIV-1 integrase and cancer cell lines. Lamellarin H is a more potent inhibitor of HIV-1 integrase but lacked the specificity required to be medicinally useful.

IT **115982-22-4P 475232-29-2P 475232-30-5P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of lamellarin α and two analogs from isovanillin using two key coupling steps and their activity as HIV-1 integrase inhibitors and as cytotoxic agents in a human cancer cell line)

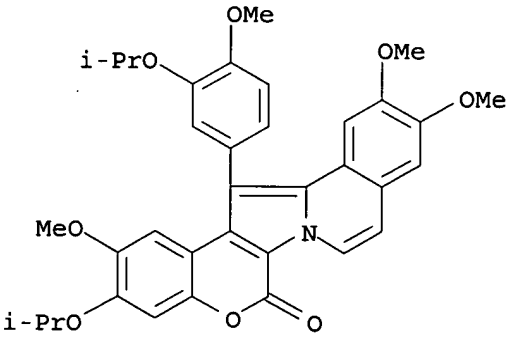
RN 115982-22-4 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dihydroxyphenyl)-2,3,11,12-tetrahydroxy- (9CI) (CA INDEX NAME)

two key coupling steps and their activity as HIV-1 integrase inhibitors and as cytotoxic agents in a human cancer cell line)

RN 215715-41-6 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,11,12-trimethoxy-14-[4-methoxy-3-(1-methylethoxy)phenyl]-3-(1-methylethoxy)- (9CI) (CA INDEX NAME)



RN 475232-32-7 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 2,11,12-trimethoxy-14-[4-methoxy-3-(1-methylethoxy)phenyl]-3-(1-methylethoxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:521462 CAPLUS
DOCUMENT NUMBER: 137:88442
TITLE: Incensole and furanogermacrens and compounds in treatment for inhibiting neoplastic lesions and microorganisms
INVENTOR(S): Shanahan-Pendergast, Elisabeth
PATENT ASSIGNEE(S): Ire.
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053138	A2	20020711	WO 2002-IE1	20020102

WO 2002053138 A3 20020919
W: AE, AG, AT, AU, BB, BG, CA, CH, CN, CO, CU, CZ, LU, LV, MA, MD, UA, UG, US, VN, YU, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, AT, BE, CH, CY, DE, ES, FI, ML, MR, NE, SN, TD, TG
EP 1351678 A2 20031015 EP 2002-727007 20020102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
US 2004092583 A1 20040513 US 2004-250535 20040102
PRIORITY APPLN. INFO.: IE 2001-2 A 20010102
WO 2002-IE1 W 20020102

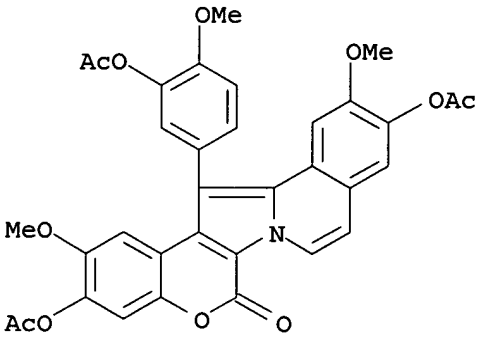
OTHER SOURCE(S): MARPAT 137:88442

AB The invention discloses the use of incensole and/or furanogermacrens, derivs. metabolites and precursors thereof in the treatment of neoplasia, particularly resistant neoplasia and immunodysregulatory disorders. These compds. can be administered alone or in combination with conventional chemotherapeutic, antiviral, antiparasite agents, radiation and/or surgery. Incensole and furanogermacren and their mixture showed antitumor activity against various human carcinomas and melanomas and antimicrobial activity against Staphylococcus aureus and Enterococcus faecalis.

IT **149355-77-1**, Lamellarin-N triacetate
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical formulation further including; incensole and furanogermacrens and compds. as antitumor and antimicrobial agents)

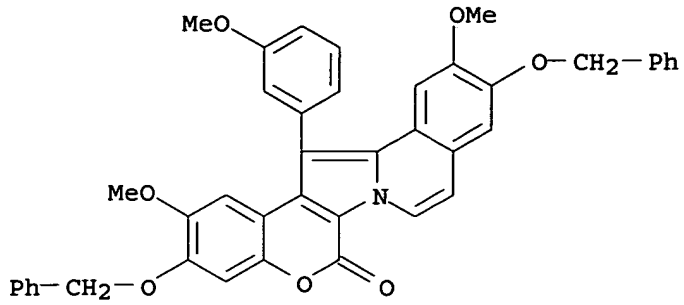
RN 149355-77-1 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-bis(acetyloxy)-14-[3-(acetyloxy)-4-methoxyphenyl]-2,12-dimethoxy- (9CI) (CA INDEX NAME)

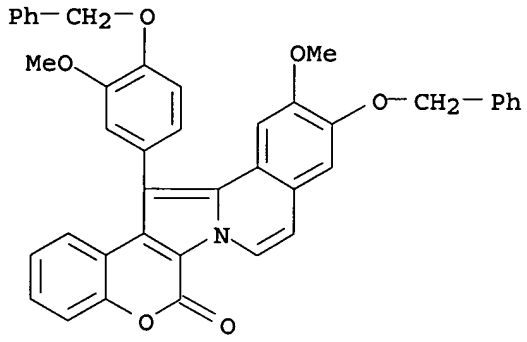


L4 ANSWER 30 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

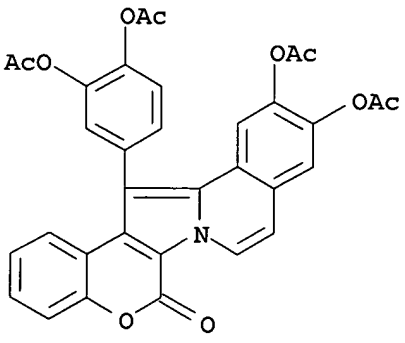
ACCESSION NUMBER: 2002:182750 CAPLUS
DOCUMENT NUMBER: 136:369875
TITLE: Synthesis and Structure-Activity Relationship Study of Lamellarin Derivatives
AUTHOR(S): Ishibashi, Fumito; Tanabe, Shinji; Oda, Tatsuya; Iwao, Masatomo
CORPORATE SOURCE: Division of Marine Life Science and Biochemistry Faculty of Fisheries and Department of Applied Chemistry, Faculty of Engineering Nagasaki University, Nagasaki, 852-8521, Japan
SOURCE: Journal of Natural Products (2002), 65(4), 500-504
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:369875



RN 422566-58-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 12-methoxy-14-[3-methoxy-4-(phenylmethoxy)phenyl]-11-(phenylmethoxy)- (9CI) (CA INDEX NAME)



IT **422566-59-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, cytotoxicity, and structure-activity relationship of lamellarin derivs. against HeLa cells)
RN 422566-59-4 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 11,12-bis(acetyloxy)-14-[3,4-bis(acetyloxy)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

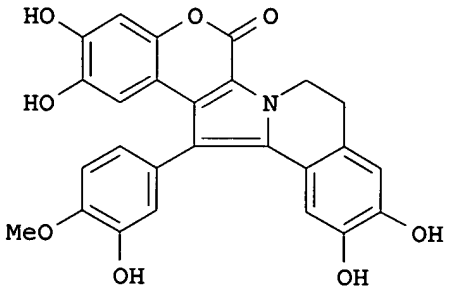
L4 ANSWER 31 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:121028 CAPLUS
DOCUMENT NUMBER: 136:366630
TITLE: A novel cytotoxic alkaloid of lamellarin class from a

marine ascidian Didemnum sp.

AUTHOR(S): Ham, Jungyeob; Kang, Heonjoong
CORPORATE SOURCE: Marine Biotechnology Laboratory and Research Institute of Oceanography, School of Earth and Environmental Sciences, Seoul National University, Seoul, 151-747, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (2002), 23(1), 163-166
CODEN: BKCSDE; ISSN: 0253-2964
PUBLISHER: Korean Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

GI



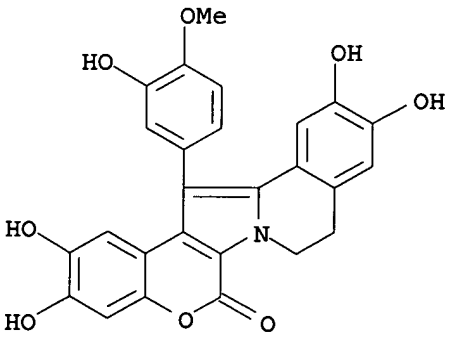
I

AB A new alkaloid, lamellarin β (I) along with the known compds. lamellarins G and L, has been isolated from a purple unidentified Didemnum species. The structure of I was established using spectroscopic methods including the extensive use of 2-dimensional NMR correlation expts. Mol. modeling study was also conducted. The issue of chirality and the shielding effect of Ph rings are also discussed.

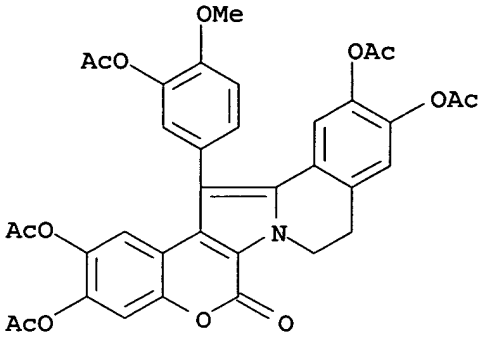
IT **425381-27-7P**, Lamellarine β
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reactant or reagent)
(isolation, structure and cytotoxicity of lamellarin β from a marine ascidian Didemnum sp.)

RN 425381-27-7 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,3,11,12-tetrahydroxy-14-(3-hydroxy-4-methoxyphenyl)- (9CI) (CA INDEX NAME)

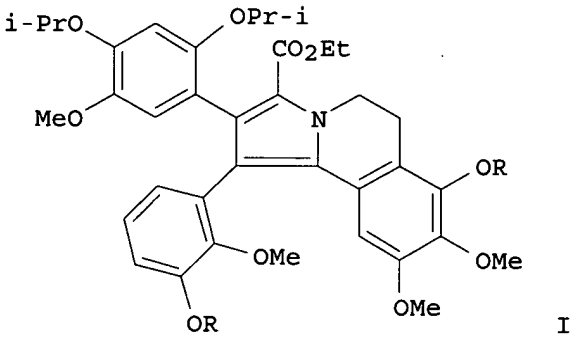


IT **115982-21-3P**, Lamellarin G **149378-57-4P**, Lamellarin L
RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:508664 CAPLUS
DOCUMENT NUMBER: 135:273102
TITLE: Syntheses of lamellarins I and K by [3+2] cycloaddition of a nitrone to an alkyne
AUTHOR(S): Diaz, Maite; Guitian, Enrique; Castedo, Luis
CORPORATE SOURCE: Departamento de Quimica Organica y Unidad Asociada al CSIC, Universidad de Santiago, Santiago de Compostela, 15706, Spain
SOURCE: Synlett (2001), (7), 1164-1166
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:273102
GI

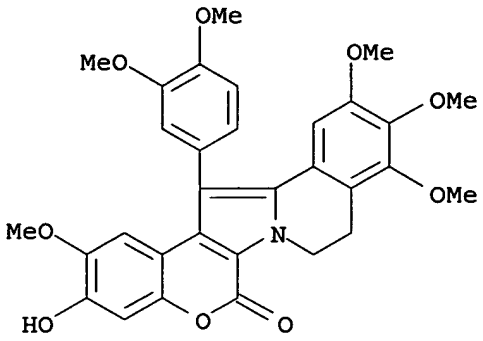


I

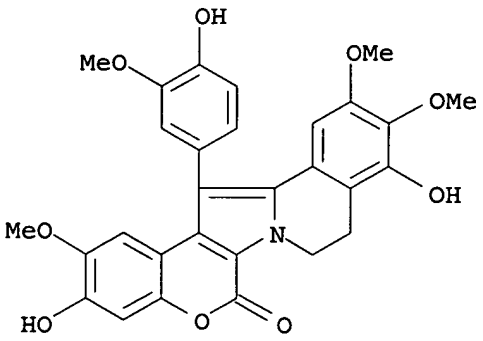
AB Lamellarins I and K were obtained by a new approach based on the 1,3-dipolar cycloaddn. of a nitrone to an alkyne. The key cycloaddn. yields an isoxazoline which rearranges to afford the central pyrrole ring in I (R = Me, iPr).

IT **149355-75-9P**, Lamellarin I **149378-56-3P**, Lamellarin K
RL: SPN (Synthetic preparation); PREP (Preparation)
(syntheses of lamellarins I and K by [3+2] cycloaddn. of a nitrone to alkyne)

RN 149355-75-9 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-3-hydroxy-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



RN 149378-56-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)

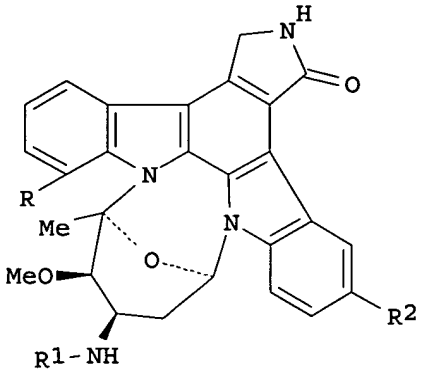


REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:102291 CAPLUS
DOCUMENT NUMBER: 134:280998
TITLE: An efficient synthesis of lamellarin alkaloids: synthesis of lamellarin G trimethyl ether
AUTHOR(S): Ruchirawat, S.; Mutarapat, T.
CORPORATE SOURCE: Chulabhorn Research Institute, Bangkok, 10210, Thailand
SOURCE: Tetrahedron Letters (2001), 42(6), 1205-1208
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:280998
GI

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 34 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:269598 CAPLUS
DOCUMENT NUMBER: 133:14836
TITLE: A new staurosporine analog from the prosobranch mollusk Coriocella nigra
AUTHOR(S): Cantrell, Charles L.; Groweiss, Amiram; Gustafson, Kirk R.; Boyd, Michael R.
CORPORATE SOURCE: Division of Cancer Treatment, Diagnosis, Laboratory of Drug Discovery Research and Development, Developmental Therapeutics Program, Frederick, MD, 21702-1201, USA
SOURCE: Natural Product Letters (1999), 14(1), 39-46
CODEN: NPLEEF; ISSN: 1057-5634
PUBLISHER: Harwood Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

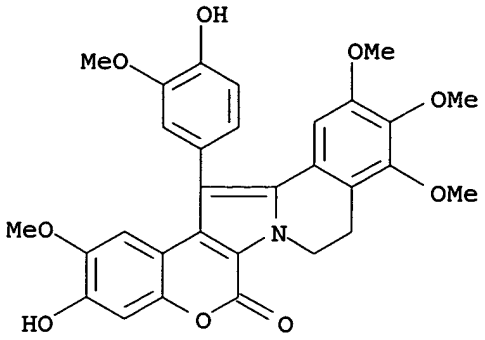


I

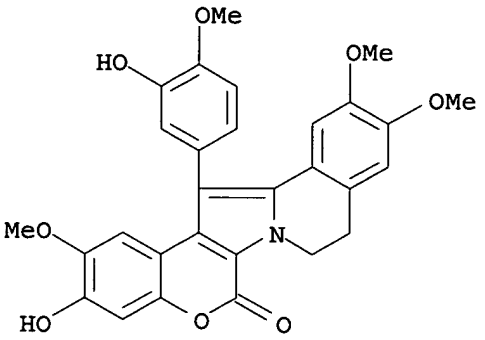
AB A new staurosporine analog, 4'-N-demethyl-11-hydroxystaurosporine I (R = OH, R1 = R2 = H), was isolated by cytotoxicity-guided fractionation of an organic extract of the prosobranch mollusk Coriocella nigra. The known staurosporine derivative 3,11-dihydroxystaurosporine I (R = R2 = OH, R1 = Me) was also isolated from this extract Concurrent investigations of Coriocella hibyae resulted in the isolation of two known compds., lamellarins C and U. The structures of all four alkaloids were elucidated by spectroscopic methods and the compds. were evaluated for cytotoxicity against 10 human tumor cell lines. 4'-N-demethyl-11-hydroxystaurosporine and 3,11-dihydroxystaurosporine demonstrated potent cytotoxic activity with IC50's ranging from approx. 2 to 66 ng/mL.

IT **97614-64-7P**, Lamellarin C **189083-79-2P**, Lamellarin U
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and antitumor activity lamellarins C and U from Coriocella hibyae)

RN 97614-64-7 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)

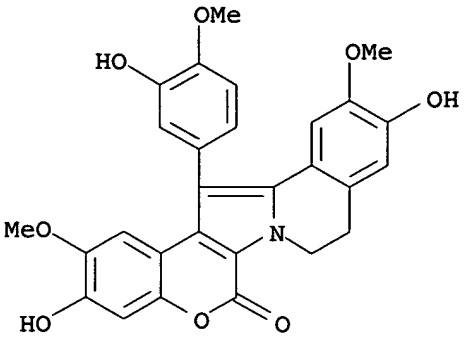


RN 189083-79-2 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 35 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:248439 CAPLUS
DOCUMENT NUMBER: 133:4836
TITLE: Alkaloids from marine organisms, part 5: biomimetic total synthesis of lamellarin L by coupling of two different arylpyruvic acid units
AUTHOR(S): Peschko, Christian; Winklhofer, Christian; Steglich, Wolfgang
CORPORATE SOURCE: Institut fur Organische Chemie, Universitat Munchen, Munchen, 81377, Germany
SOURCE: Chemistry--A European Journal (2000), 6(7), 1147-1152
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:4836
GI

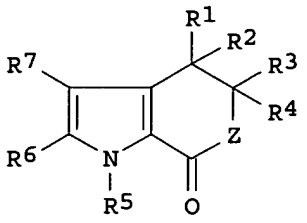


REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

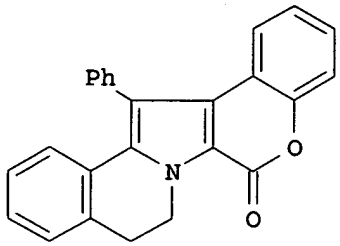
L4 ANSWER 36 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:819377 CAPLUS
DOCUMENT NUMBER: 132:50151
TITLE: Preparation of intermediates for lamellarin alkaloid and their analogs via palladium catalyzed intramolecular cyclization
INVENTOR(S): Banwell, Martin Gerhardt; Flynn, Bernard Luke
PATENT ASSIGNEE(S): Australian National University, Australia
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9967250	A1	19991229	WO 1999-AU516		19990625
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2334322	AA	19991229	CA 1999-2334322		19990625
AU 9945907	A1	20000110	AU 1999-45907		19990625
AU 755919	B2	20030102			
BR 9911559	A	20010320	BR 1999-11559		19990625
EP 1090008	A1	20010411	EP 1999-928889		19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2002518503	T2	20020625	JP 2000-555902		19990625
NZ 508652	A	20030926	NZ 1999-508652		19990625
CN 1132836	B	20031231	CN 1999-807867		19990625
RU 2250209	C2	20050420	RU 2001-102258		19990625
US 6469171	B1	20021022	US 2001-720320		20010202
PRIORITY APPLN. INFO.:			AU 1998-4333	A	19980625
			WO 1999-AU516	W	19990625

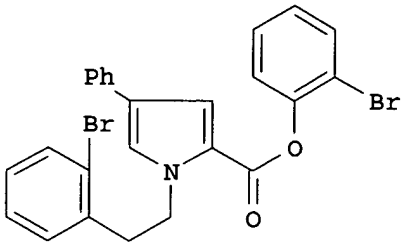
OTHER SOURCE(S): MARPAT 132:50151
GI



I



II



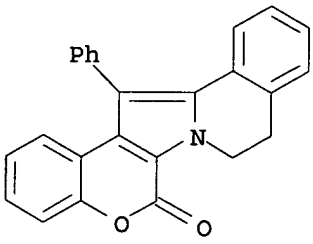
III

AB Preparation of lamellarin alkaloid analog intermediates, such as I [R1, R2, R3, R4 = H, alkyl, alkenyl, alkynyl, amino, protected hydroxy, alkoxy, aryl, carboxyl, acyl, acyloxy, alkylthio, halogen, etc.; R2R3 = bond, fused carbocyclic or heterocyclic ring; R5, R6, R7 = H, CN, NO2, alkyl, alkenyl, alkynyl, alkoxy, aryl, heterocyclyl, carboxyl, acyl, carboxamido, alkylthio, halogen, sulfate, phosphate, etc.; R5R6 = fused carbocyclic or heterocyclic ring], which contain a pyrrole subunit, via palladium catalyzed intramol. cyclization was presented. Thus, lamellarin analog II was prepared in 16% yield by cyclization of pyrrole III using Pd(OAc)2, PPh3, and AcONa in DMF.

IT **252861-27-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of intermediates for lamellarin alkaloid and their analogs via palladium catalyzed intramol. cyclization)

RN 252861-27-1 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-14-phenyl- (9CI) (CA INDEX NAME)

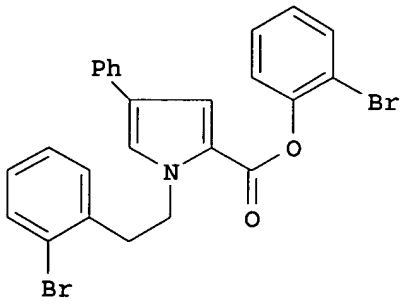


REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

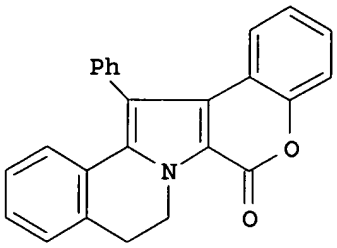
L4 ANSWER 37 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:716752 CAPLUS
DOCUMENT NUMBER: 132:50148
TITLE: Assessment of double-barrelled Heck cyclizations as a means for construction of the 14-phenyl-8,9-dihydro-6H-[1]benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one core associated with certain members of the lamellarin class of marine natural product

10/524,151

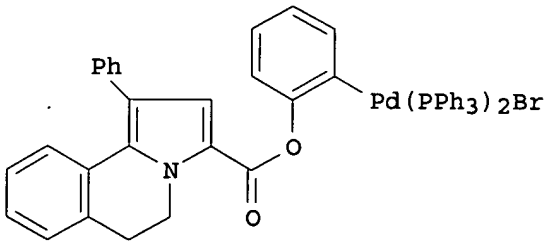
AUTHOR(S): Banwell, Martin G.; Flynn, Bernard L.; Hockless, David C. R.; Longmore, Robert W.; Rae, A. David
CORPORATE SOURCE: Research School of Chemistry, Institute of Advanced Studies, The Australian National University, Canberra, 0200, Australia
SOURCE: Australian Journal of Chemistry (1999), 52(8), 755-765
CODEN: AJCHAS; ISSN: 0004-9425
PUBLISHER: CSIRO Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:50148
GI



I



II



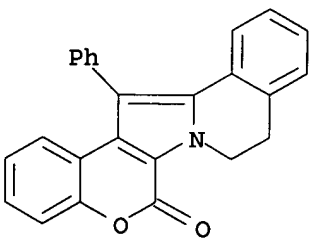
III

AB The 1,2,4-trisubstituted pyrrole (I), which is readily prepared from pyrrole, undergoes double-barrelled Heck cyclizations to give, inter alia, compds. (II) and (III) for which crystal structures have been determined Product (II) constitutes the core associated with several key members, e.g. lamellarin K and lamellarin N, of the lamellarin class of marine alkaloid.

IT **252861-27-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of the lamellarin core via double-barrelled Heck cyclizations)

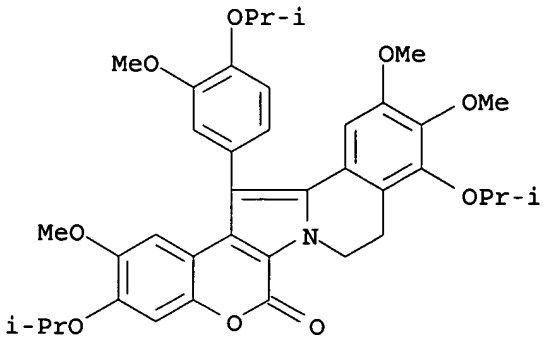
RN 252861-27-1 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-14-phenyl- (9CI) (CA INDEX NAME)

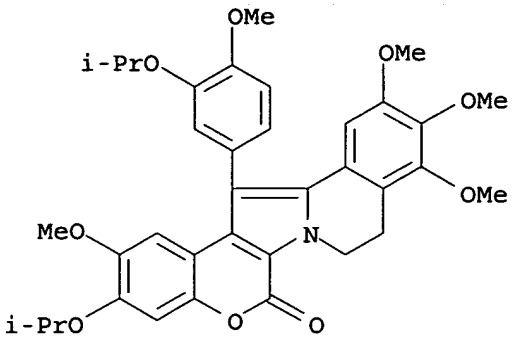


REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

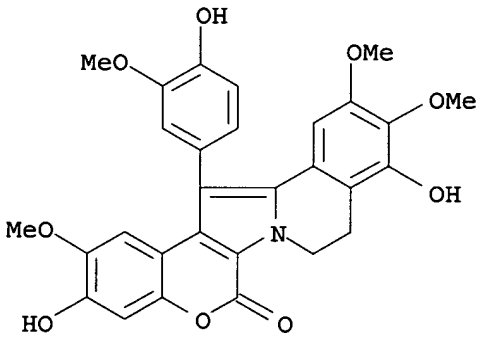
L4 ANSWER 38 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:447639 CAPLUS
DOCUMENT NUMBER: 131:286220
TITLE: Selective Cleavage of Isopropyl Aryl Ethers by Aluminum Trichloride. [Erratum to document cited in CA130:81241]
AUTHOR(S): Banwell, Martin G.; Flynn, Bernard L.; Stewart, Scott G.
CORPORATE SOURCE: Research School Chem. Institute Advanced Studies, The Australian National Univ., Canberra, 0200, Australia
SOURCE: Journal of Organic Chemistry (1999), 64(16), 6118
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Professor C. Szantay (Tech. University of Budapest) has previously reported three examples of the title reaction: Szantay, C. Acta Chim. Hung. 1957, 12, 83.
IT **200941-21-5**, Lamellarin K triisopropyl ether **215715-37-0**, Lamellarin T diisopropyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(selective cleavage of iso-Pr aryl ethers by aluminum trichloride (Erratum))
RN 200941-21-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,11,12-trimethoxy-14-[3-methoxy-4-(1-methylethoxy)phenyl]-3,10-bis(1-methylethoxy)- (9CI) (CA INDEX NAME)



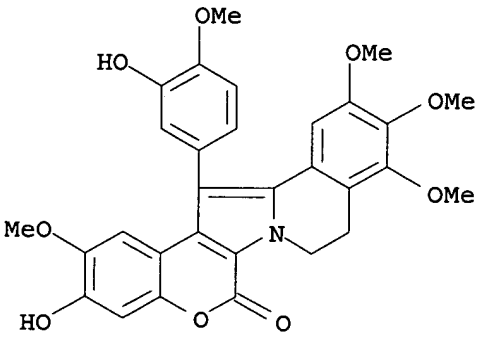
RN 215715-37-0 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,10,11,12-tetramethoxy-14-[4-methoxy-3-(1-methylethoxy)phenyl]-3-(1-methylethoxy)- (9CI) (CA INDEX NAME)



IT **149378-56-3P**, Lamellarin K **189083-78-1P**, Lamellarin T
RL: SPN (Synthetic preparation); PREP (Preparation)
(selective cleavage of iso-Pr aryl ethers by aluminum trichloride (Erratum))
RN 149378-56-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



RN 189083-78-1 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



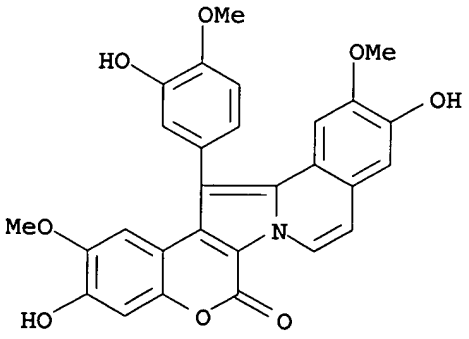
L4 ANSWER 39 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:282835 CAPLUS
DOCUMENT NUMBER: 131:82604

TITLE: Lamellarin α 20-Sulfate, an Inhibitor of HIV-1 Integrase Active against HIV-1 Virus in Cell Culture
AUTHOR(S): Reddy, M. Venkata Rami; Rao, M. Rama; Rhodes, Denise; Hansen, Mark S. T.; Rubins, Kathleen; Bushman, Frederic D.; Venkateswarlu, Yenamandra; Faulkner, D. John
CORPORATE SOURCE: Natural Products Laboratory, Indian Institute of Chemical Technology, Hyderabad, 500 007, India
SOURCE: Journal of Medicinal Chemistry (1999), 42(11), 1901-1907
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB HIV-1 integrase is an attractive target for anti-retroviral chemotherapy, but to date no clin. useful inhibitors have been developed. We have screened diverse marine natural products for compds. active against integrase in vitro and found a series of ascidian alkaloids, the lamellarins, that show selective inhibition. A new member of the family named lamellarin α 20-sulfate , the structure of which was determined from spectroscopic data, displayed the most favorable therapeutic index. The site of action of lamellarin α 20-sulfate on the integrase protein was mapped by testing activity against deletion mutants of integrase. Inhibition of isolated catalytic domain was detectable though weaker than inhibition of full length integrase; possibly lamellarin α 20-sulfate binds a site composed of multiple integrase domains. Lamellarin α 20-sulfate also inhibited integration in vitro by authentic HIV-1 replication intermediates isolated from infected cells. Lamellarin α 20-sulfate was tested against wild type HIV using the MAGI indicator cell assay and found to inhibit early steps of HIV replication. To clarify the inhibitor target, we tested inhibition against an HIV-based retroviral vector bearing a different viral envelope. Inhibition was observed, indicating that the HIV envelope cannot be the sole target of lamellarin α 20-sulfate in cell culture. In addition, these single round tests rule out action against viral assembly or budding. These findings provide a new class of compds. for potential development of clin. useful integrase inhibitors.

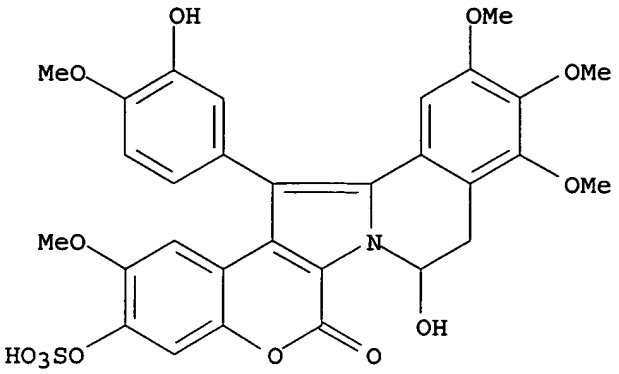
IT **149379-26-0**, Lamellarin N **189083-78-1**, Lamellarin T **189083-85-0**, Lamellarin W **229956-48-3** **229964-40-3**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HIV-1 integrase inhibition and toxicity of lamellarins)

RN 149379-26-0 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-dihydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,12-dimethoxy- (9CI) (CA INDEX NAME)

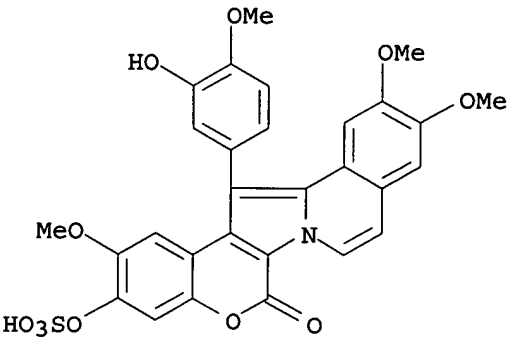


8,9-dihydro-8-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,10,11,12-tetramethoxy-3-(sulfooxy)- (9CI) (CA INDEX NAME)

Currently available stereo shown.



IT **229956-47-2P**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(isolation of lamellarin α 20-sulfate, an inhibitor of HIV-1 integrase, from an unidentified ascidian)
RN 229956-47-2 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3-hydroxy-4-methoxyphenyl)-2,11,12-trimethoxy-3-(sulfooxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:59425 CAPLUS
DOCUMENT NUMBER: 130:220547
TITLE: New Lamellarin Alkaloids from the Australian Ascidian, Didemnum chartaceum
AUTHOR(S): Davis, Rohan A.; Carroll, Anthony R.; Pierens, Gregory K.; Quinn, Ronald J.
CORPORATE SOURCE: Queensland Pharmaceutical Research Institute, Griffith University, Brisbane, 4111, Australia
SOURCE: Journal of Natural Products (1999), 62(3), 419-424
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

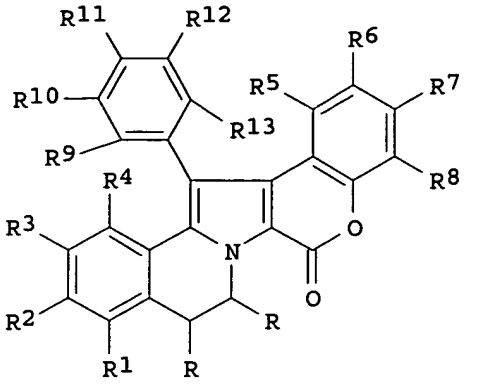
L4 ANSWER 41 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:745037 CAPLUS
DOCUMENT NUMBER: 130:3974
TITLE: Preparation of fused polycyclic alkaloids by ring closure of azomethine ylides, novel compounds thereof and their use as chemotherapeutic agents
INVENTOR(S): Banwell, Martin Gerhardt; Flynn, Bernard Luke
PATENT ASSIGNEE(S): The Australian National University, Australia
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850365	A1	19981112	WO 1998-AU312	19980501
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2330976	AA	19981112	CA 1998-2330976	19980501
AU 9870170	A1	19981127	AU 1998-70170	19980501
AU 749165	B2	20020620		
EP 981517	A1	20000301	EP 1998-916668	19980501
EP 981517	B1	20051116		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002501504	T2	20020115	JP 1998-547534	19980501
RU 2215737	C2	20031110	RU 1999-125614	19980501
AT 309989	E	20051215	AT 1998-916668	19980501
EP 1621533	A1	20060201	EP 2005-24198	19980501
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, AL				
US 6521757	B1	20030218	US 2000-423167	20000501
US 2003208076	A1	20031106	US 2002-309916	20021204
US 2005154004	A1	20050714	US 2005-73974	20050307

PRIORITY APPLN. INFO.:

AU 1997-6565	A	19970502
EP 1998-916668	A3	19980501
WO 1998-AU312	W	19980501
US 2000-423167	A3	20000501
US 2002-309916	A3	20021204

OTHER SOURCE(S): MARPAT 130:3974
GI



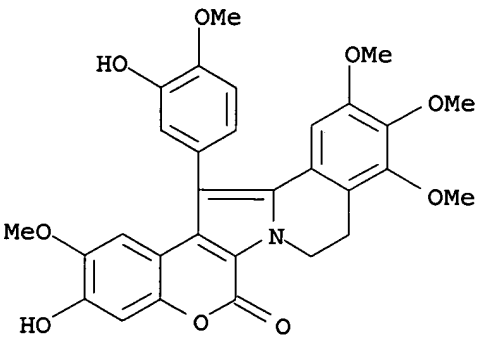
I

AB Lamellarins I [R = H; RR = bond; R1-R13 = H, OH, alkoxy, etc.] were prepared for possible use as agents for the treatment of multidrug resistant tumors (no data). Thus, lamellarin analog I (RR = bond, R1-R13 = H) was prepared starting from phenylacetylene and o-acetoxyiodobenzene via the cyclization of 2-(BrCH2CO2)C6H4C.tplbond.CPh with isoquinoline.

IT **189083-78-1P**, Lamellarin T **200941-21-5P**, Lamellarin K triisopropyl ether **215715-37-0P**, Lamellarin T diisopropyl ether **215715-39-2P**, 10-Deoxylamellarin K diisopropyl ether **215715-41-6P**, Lamellarin U diisopropyl ether **215715-42-7P**, Lamellarin W diisopropyl ether
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of lamellarins, fused polycyclic alkaloids, via ring closure of azomethine ylides, for use as chemotherapeutic agents)

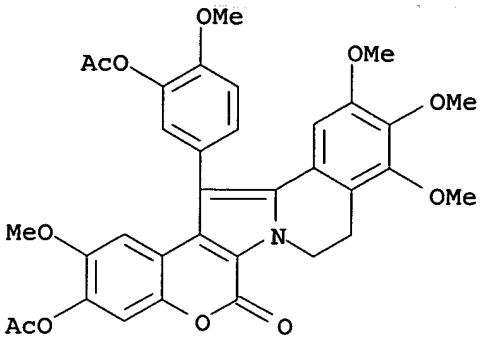
RN 189083-78-1 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)

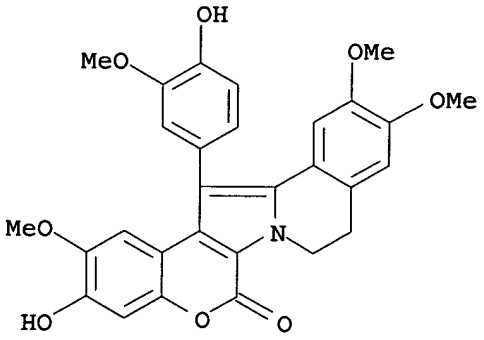


RN 200941-21-5 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,11,12-trimethoxy-14-[3-methoxy-4-(1-methylethoxy)phenyl]-3,10-bis(1-methylethoxy)- (9CI) (CA INDEX NAME)

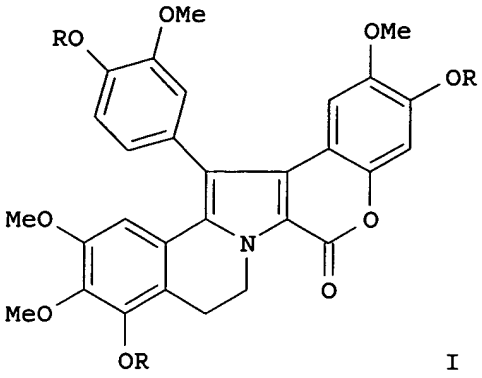


RN 215715-40-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)

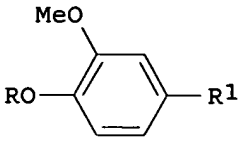


REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 42 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:719947 CAPLUS
DOCUMENT NUMBER: 130:81241
TITLE: Selective cleavage of isopropyl aryl ethers by aluminum trichloride
AUTHOR(S): Banwell, Martin G.; Flynn, Bernard L.; Stewart, Scott G.
CORPORATE SOURCE: Research School of Chemistry Institute of Advanced Studies, The Australian National University, Canberra, 0200, Australia
SOURCE: Journal of Organic Chemistry (1998), 63(24), 9139-9144
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 130:81241
GI



I



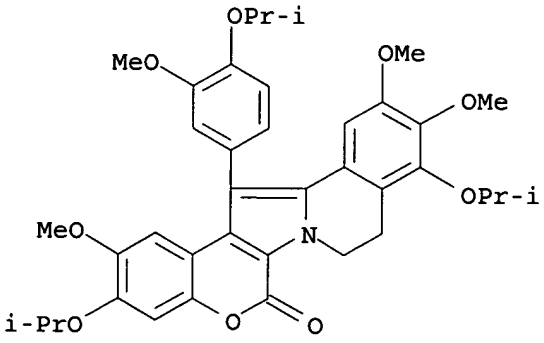
II

AB Treatment of iso-Pr aryl ethers, e.g., lamellarin K triisopropyl ether (I; R = Me2CH) and the isopropoxyanisoles II (R = Me2CH; R1 = Br, HCO2, CH:CBr2), with AlCl3 in CH2Cl2 at room temperature for 2-16 h gave the corresponding phenols, e.g. I (R = H) and II (R = H; R1 = Br, HCO2, CH:CBr2), in 80-96% yields. Thus, the iso-Pr group represents a useful protecting group for phenols, including biol. active polyphenolic natural products.

IT **200941-21-5**, Lamellarin K triisopropyl ether **215715-37-0**
, Lamellarin T diisopropyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(selective cleavage of iso-Pr aryl ethers by aluminum trichloride)

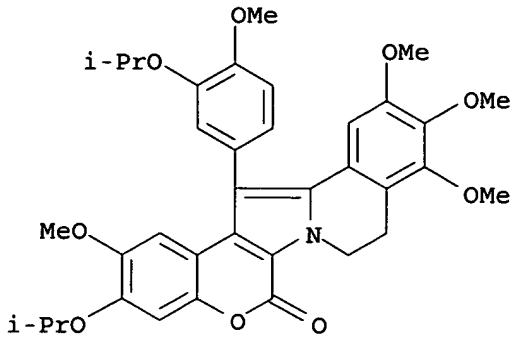
RN 200941-21-5 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,11,12-trimethoxy-14-[3-methoxy-4-(1-methylethoxy)phenyl]-3,10-bis(1-methylethoxy)- (9CI) (CA INDEX NAME)

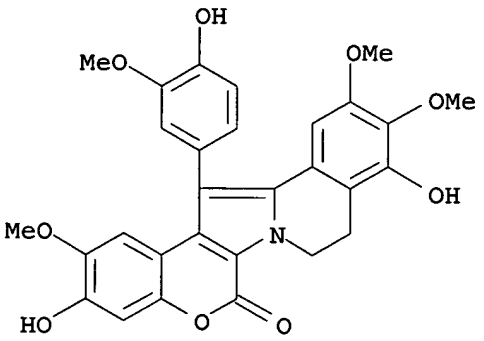


RN 215715-37-0 CAPLUS

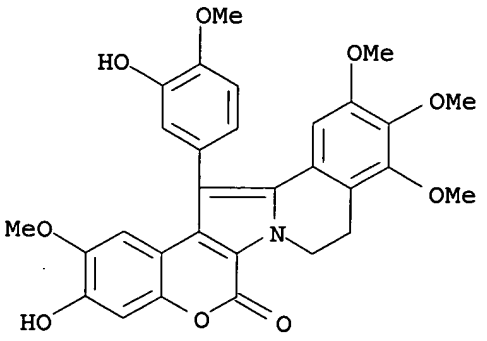
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,10,11,12-tetramethoxy-14-[4-methoxy-3-(1-methylethoxy)phenyl]-3-(1-methylethoxy)- (9CI) (CA INDEX NAME)



IT **149378-56-3P**, Lamellarin K **189083-78-1P**, Lamellarin T
RL: SPN (Synthetic preparation); PREP (Preparation)
(selective cleavage of iso-Pr aryl ethers by aluminum trichloride)
RN 149378-56-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



RN 189083-78-1 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



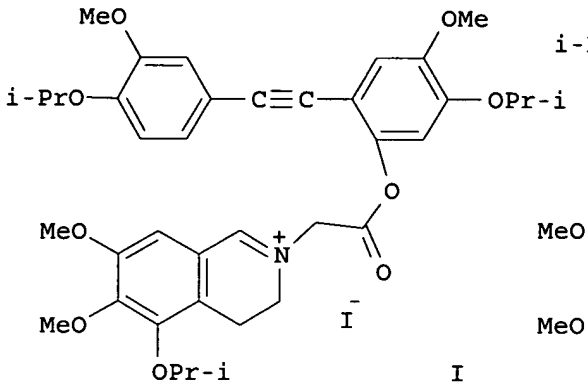
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:764157 CAPLUS

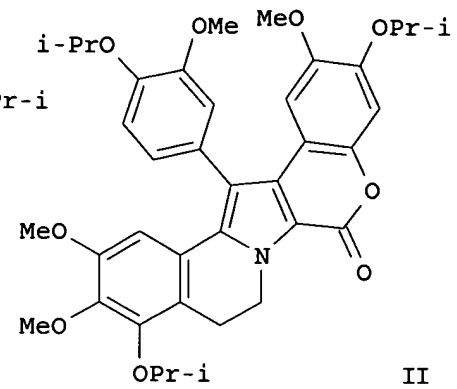
10/524,151

DOCUMENT NUMBER:	128:89041
TITLE:	Convergent total synthesis of lamellarin K
AUTHOR(S):	Banwell, Martin; Hockless, David
CORPORATE SOURCE:	Institute of Advanced Studies, Research School of Chemistry, The Australian National University, Canberra, 0200, Australia
SOURCE:	Chemical Communications (Cambridge) (1997), (23), 2259-2260 CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER:	Royal Society of Chemistry
DOCUMENT TYPE:	Journal
LANGUAGE:	English

GI



I



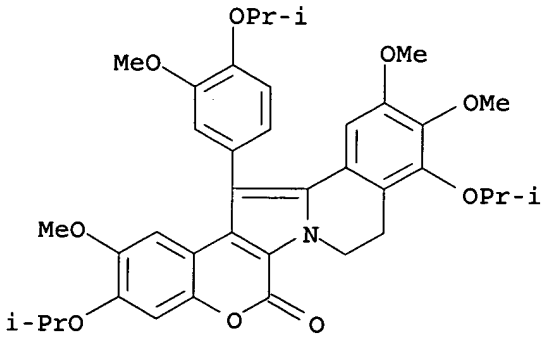
II

AB The azomethine ylide derived from dihydroisoquinolinium salt I undergoes an intramol. [3+2] cycloaddn. reaction to give pyrrole II which upon de-isopropylation affords the marine alkaloid lamellarin K.

IT **200941-21-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(total synthesis of lamellarin K)

RN 200941-21-5 CAPLUS

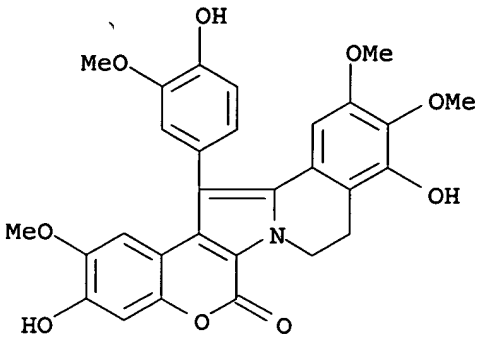
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-2,11,12-trimethoxy-14-[3-methoxy-4-(1-methylethoxy)phenyl]-3,10-bis(1-methylethoxy)- (9CI) (CA INDEX NAME)



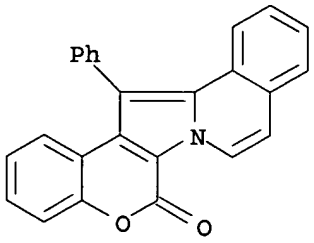
IT **149378-56-3P**, Lamellarin K **200941-11-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of lamellarin K)

RN 149378-56-3 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



RN 200941-11-3 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 44 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

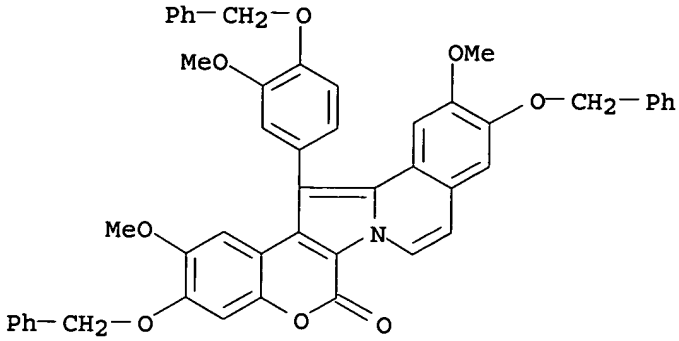
ACCESSION NUMBER:	1997:314612 CAPLUS
DOCUMENT NUMBER:	127:5218
TITLE:	Total syntheses of lamellarin D and H. The first synthesis of lamellarin-class marine alkaloids
AUTHOR(S):	Ishibashi, Fumito; Miyazaki, Yuka; Iwao, Masatomo
CORPORATE SOURCE:	Faculty of Fisheries, Nagasaki University, Nagasaki, 852, Japan
SOURCE:	Tetrahedron (1997), 53(17), 5951-5962 CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER:	Elsevier
DOCUMENT TYPE:	Journal
LANGUAGE:	English
OTHER SOURCE(S):	CASREACT 127:5218

GI

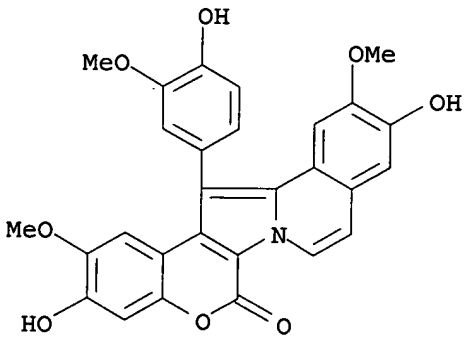
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Total syntheses of marine polyarom. alkaloids, lamellarin D (I, R = Me) and H (I, R = H), in five steps each are described. The pentacyclic lamellarin ring system was constructed by N-ylide mediated pyrrole ring formation and subsequent lactonization of a quaternary ammonium salt obtained via an assembly of the known benzylisoquinoline II, benzoate III and Et bromoacetate.

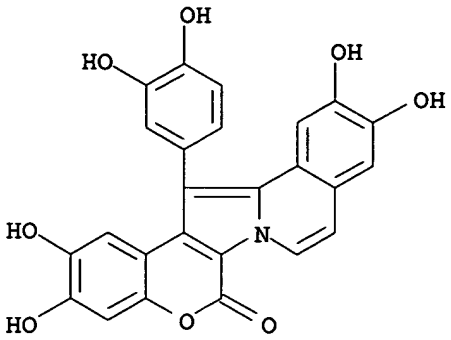
IT **190278-32-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(total syntheses of lamellarin D and H, of pentacyclic lamellarin-class marine alkaloids)
RN 190278-32-1 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 2,12-dimethoxy-14-[3-methoxy-4-(phenylmethoxy)phenyl]-3,11-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



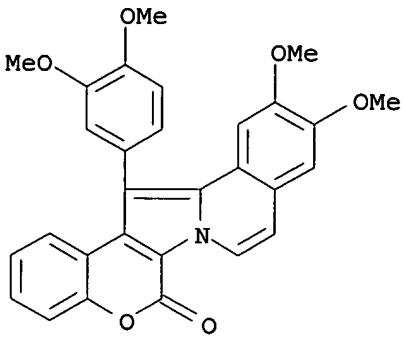
IT **97614-65-8P**, Lamellarin D **115982-22-4P**, Lamellarin H **190278-37-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(total syntheses of lamellarin D and H, of pentacyclic lamellarin-class marine alkaloids)
RN 97614-65-8 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,12-dimethoxy- (9CI) (CA INDEX NAME)



RN 115982-22-4 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dihydroxyphenyl)-2,3,11,12-tetrahydroxy- (9CI) (CA INDEX NAME)

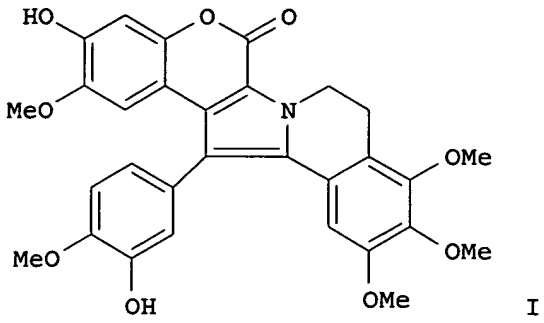


RN 190278-37-6 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-11,12-dimethoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 45 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:198154 CAPLUS
DOCUMENT NUMBER: 126:291031
TITLE: New lamellarin alkaloids from an unidentified ascidian from the Arabian Sea
AUTHOR(S): Reddy, M. Venkata Rami; Faulkner, D. John; Venkateswarlu, Y.; Rao, M. Rama
CORPORATE SOURCE: Scripps Inst. Oceanography, Univ. California San Diego, La Jolla, CA, 92093-02112, USA
SOURCE: Tetrahedron (1997), 53(10), 3457-3466
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



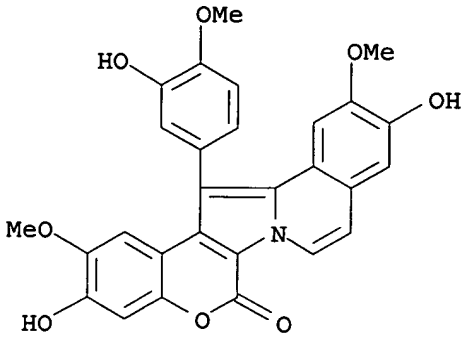
I

AB An unidentified ascidian from the Arabian Sea contained nine new alkaloids of the lamellarin class together with lamellarin N. The structures of the 20-sulfate derivs. of lamellarins T, U, V, and Y and lamellarins T (I), U, V, W, and X were identified by interpretation of spectroscopic data. This is the first report of lamellarin sulfates.

IT **149379-26-0P**, Lamellarin N
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(lamellarin alkaloids isolation and structural characterization and cytotoxic activity from Arabian Sea ascidian)

RN 149379-26-0 CAPLUS

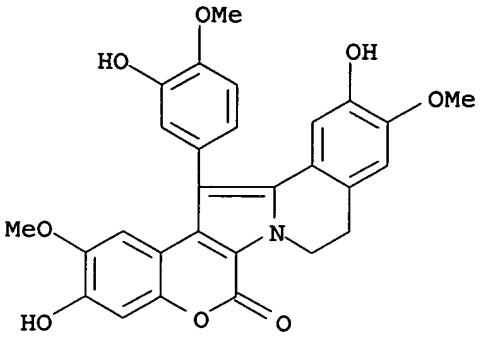
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-dihydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,12-dimethoxy- (9CI) (CA INDEX NAME)



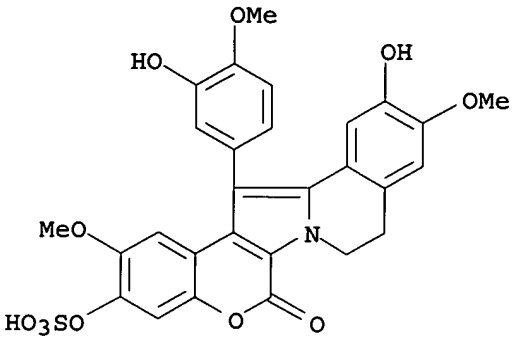
IT **189083-78-1P**, Lamellarine T **189083-79-2P**, Lamellarine U **189083-80-5P**, Lamellarine V **189083-85-0P**, Lamellarine W **189083-94-1P**, Lamellarine X **189084-00-2P**, Lamellarine T 20-sulfate sodium salt **189084-01-3P**, Lamellarine U 20-sulfate sodium salt **189084-02-4P**, Lamellarine V 20-sulfate sodium salt **189084-05-7P**, Lamellarine Y **189084-06-8P**, Lamellarin Y 20-sulfate sodium salt
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(lamellarin alkaloids isolation and structural characterization and cytotoxic activity from Arabian Sea ascidian)

RN 189083-78-1 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



RN 189084-06-8 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-12-hydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,11-dimethoxy-3-(sulfooxy)-, monosodium salt (9CI) (CA INDEX NAME)



● Na

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 46 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:178866 CAPLUS
DOCUMENT NUMBER: 126:166474
TITLE: Use of lamellarin-class alkaloids in methods of treatment of multidrug-resistant tumors
INVENTOR(S): Puentes, Jose Luis Fernandez; Garcia Gravalos, Delores; Rodriguez Quesada, Ana
PATENT ASSIGNEE(S): Pharma Mar, S.A., Spain
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9701336	A1	19970116	WO 1996-IB742	19960626

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,

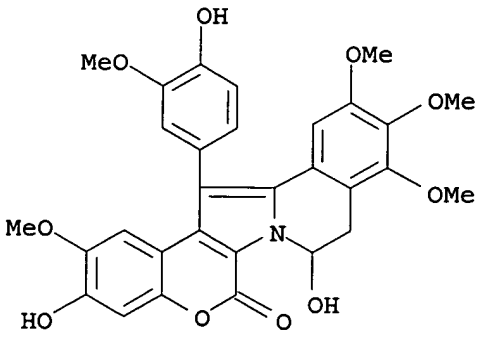
	SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5852033		A	19981222	US 1995-496465	19950629
CA 2225807		AA	19970116	CA 1996-2225807	19960626
AU 9663167		A1	19970130	AU 1996-63167	19960626
AU 700420		B2	19990107		
EP 835108		A1	19980415	EP 1996-922197	19960626
EP 835108		B1	20011107		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11508882		T2	19990803	JP 1996-504285	19960626
AT 208196		E	20011115	AT 1996-922197	19960626
ES 2164899		T3	20020301	ES 1996-922197	19960626
PT 835108		T	20020328	PT 1996-922197	19960626
RU 2188637		C2	20020910	RU 1998-101364	19960626
PL 184667		B1	20021129	PL 1996-324282	19960626
US 6087370		A	20000711	US 1998-216406	19981218
PRIORITY APPLN. INFO.:				US 1995-496465 A	19950629
				WO 1996-IB742 W	19960626

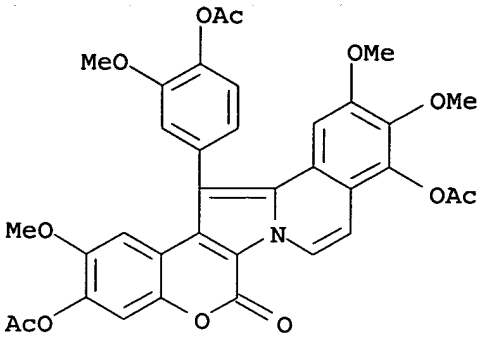
AB The lamellarin compds. disclosed herein have been inhibitors of MDR, i.e., acquired multidrug resistance, which has become a major problem in the treatment of various cancers. The lamellarin compds. disclosed herein have also been cytotoxic to MDR cells. MDR is believed to be associated with certain alterations in tumor cells, including an overexpression of a certain high mol. weight membrane glycoprotein and a decrease in the ability of the tumor cell to accumulate and retain chemotherapeutic agents. The present invention is thus directed to methods of treating MDR-type tumors with an effective anti-MDR amount (either inhibitory or cytotoxic) of one or more lamellarin compds., which compds. have been effective antitumoral agents against MDR cells.

IT **97614-62-5**, Lamellarin A **97614-63-6**, Lamellarin B **97633-82-4** **149355-75-9**, Lamellarin I **149355-76-0**, Lamellarin J **149355-77-1**, Lamellarin N triacetate **149355-78-2**, Lamellarin K triacetate **149355-79-3**, Lamellarin L triacetate **149378-56-3**, Lamellarin K **149378-57-4**, Lamellarin L **149378-58-5**, Lamellarin M **187156-50-9** **187156-53-2** **187156-56-5**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor activity of lamellarin alkaloids and reversal of multidrug resistance)

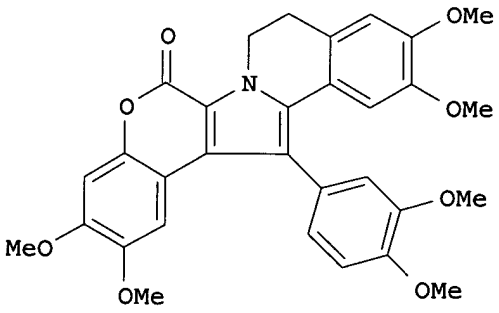
RN 97614-62-5 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,8-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy-, (8R,14S)-rel- (9CI) (CA INDEX NAME)



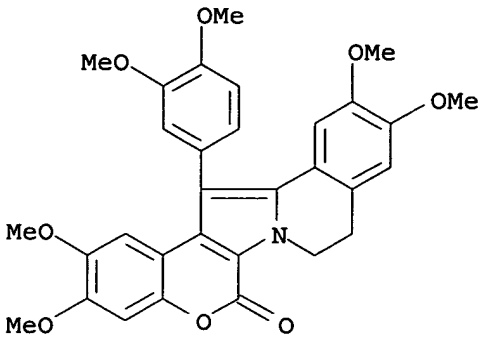


L4 ANSWER 47 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:117329 CAPLUS
DOCUMENT NUMBER: 126:171746
TITLE: Alkaloids from marine organisms. 2. Biomimetic synthesis of lamellarin G trimethyl ether
AUTHOR(S): Heim, Alexander; Terpin, Andreas; Steglich, Wolfgang
CORPORATE SOURCE: Institut Organische Chemie Universitaet, Munich, D-80333, Germany
SOURCE: Angewandte Chemie, International Edition in English (1997), 36(1/2), 155-156
CODEN: ACIEAY; ISSN: 0570-0833
PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 126:171746
GI



I

AB The title compound (I) was prepared in 3 steps from 3-(3,4-dimethoxyphenyl)pyruvic acid.
IT **181423-71-2P**, Lamellarin G trimethyl ether
RL: SPN (Synthetic preparation); PREP (Preparation)
(biomimetic synthesis of lamellarin G tri-Me ether)
RN 181423-71-2 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-2,3,11,12-tetramethoxy- (9CI) (CA INDEX NAME)

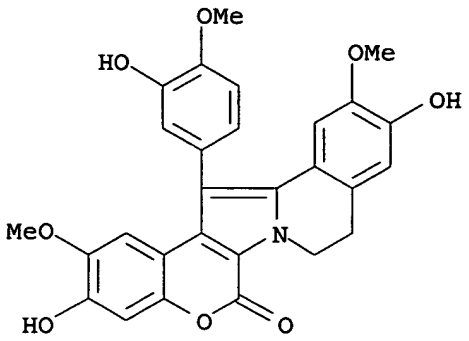


REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

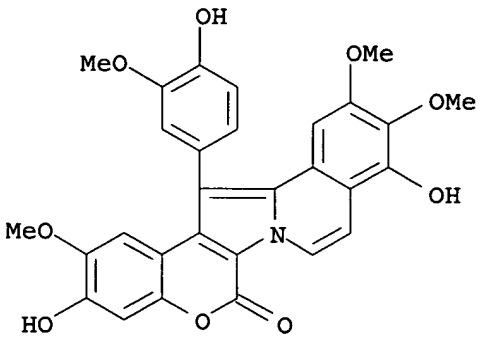
L4 ANSWER 48 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:619580 CAPLUS
DOCUMENT NUMBER: 125:265259
TITLE: Polyaromatic alkaloids from marine invertebrates as cytotoxic compounds and inhibitors of multidrug resistance caused by P-glycoprotein
AUTHOR(S): Quesada, A. R.; Gravalos, M. D. Garcia; Puentes, J. L. Fernandez
CORPORATE SOURCE: Facultad de Ciencias, Universidad de Malaga, Malaga, E-29071, Spain
SOURCE: British Journal of Cancer (1996), 74(5), 677-682
CODEN: BJCAAI; ISSN: 0007-0920
PUBLISHER: Stockton
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of several members of the family of lamellarins, polyarom. alkaloids isolated from tunicates belonging to the genus Didemnum, on the growth of several tumor cell lines and on P-glycoprotein (P-gp)-mediated multidrug resistance (MDR), were investigated. Cytotoxicity expts. of lamellarins were performed on a panel of tumor cell lines, including two multidrug-resistant cell lines. Some lamellarins showed good anti-tumor activity, with similar levels of cytotoxicity against both the resistant and their corresponding parental cell lines. Two lamellarins displayed a high potency against lung carcinoma cells. Studies of the resistance modifier activity of the different lamellarins at non-toxic concns. were also carried out in cells exhibiting MDR, and was selected for the highest chemosensitizing activity. At non-toxic doses, verapamil and lamellarin I effectively increased the cytotoxicity of doxorubicin, vinblastine and daunorubicin in a concentration-dependent manner in multidrug-resistant cells, but the potency of lamellarin I as a MDR modulator was 9- to 16-fold higher than that of verapamil. In vitro measurements of rhodamine 123 accumulation in the multidrug-resistant Lo Vo/Dx cells suggest that lamellarin I reverses MDR by directly inhibiting the P-gp-mediated drug efflux. This work underscores the possibility of using these marine-derived compds. as a potential new source of anti-tumoral drugs active on resistant cells as well as of non-toxic modulators of the MDR phenotype.

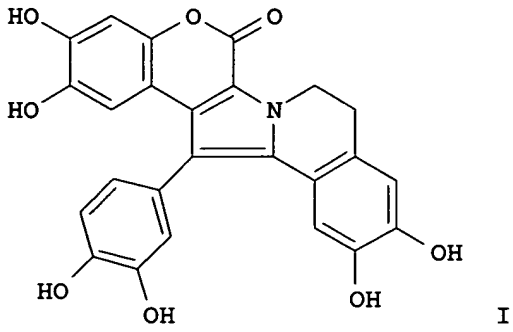
IT **97614-62-5**, Lamellarin A **97614-63-6**, Lamellarin B **97633-82-4** **149355-75-9**, Lamellarin I **149355-76-0**, Lamellarin J **149355-77-1**, Lamellarin N triacetate **149355-78-2**, Lamellarin K-triacetate **149355-79-3**, Lamellarin L-triacetate **149378-56-3**, Lamellarin K **149378-57-4**, Lamellarin L **149378-58-5**, Lamellarin M
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES



RN 149378-58-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 49 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:578938 CAPLUS
DOCUMENT NUMBER: 125:276259
TITLE: Determination of 1J, 2J, and 3J carbon-carbon coupling constants at natural abundance
AUTHOR(S): Reif, Bernd; Koeck, Matthias; Kerssebaum, Rainer; Schleucher, Juergen; Griesinger, Christian
CORPORATE SOURCE: Institut Organische Chemie, Universitaet Frankfurt, Frankfurt, D-60439, Germany
SOURCE: Journal of Magnetic Resonance, Series B (1996), 112(3), 295-301
CODEN: JMRBE5; ISSN: 1064-1866
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



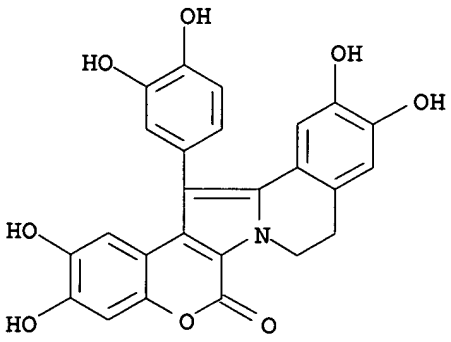
I

AB Using 5,6-dihydrolamellarin H (I) as a model, the 1,n-ADEQUATE experiment was quant. evaluated to yield the desired nJcc coupling consts. 3J/2J carbon-carbon couplings for 5,6-dihydrolamellarin H were determined from a 1,n-ADEQUATE spectrum (τ = 61.6 ms).

IT **173355-34-5P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(determination of 1J, 2J, and 3J carbon-carbon coupling consts. at natural abundance)

RN 173355-34-5 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dihydroxyphenyl)-8,9-dihydro-2,3,11,12-tetrahydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 50 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:536323 CAPLUS

DOCUMENT NUMBER: 125:217306

TITLE: Lamellarin-S: a new aromatic metabolite from an Australian Tunicate, Didemnum sp.

AUTHOR(S): Urban, Sylvia; Capon, Robert J.

CORPORATE SOURCE: Sch. Chem., Univ. Melbourne, Parkville, 3052, Australia

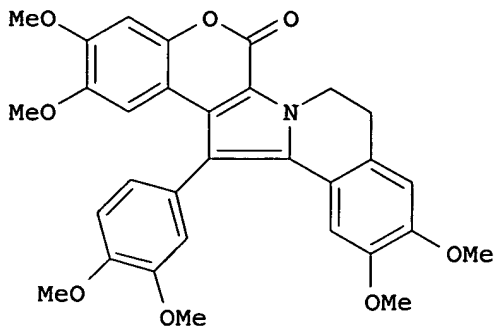
SOURCE: Australian Journal of Chemistry (1996), 49(6), 711-713
CODEN: AJCHAS; ISSN: 0004-9425

PUBLISHER: Commonwealth Scientific and Industrial Research Organization

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



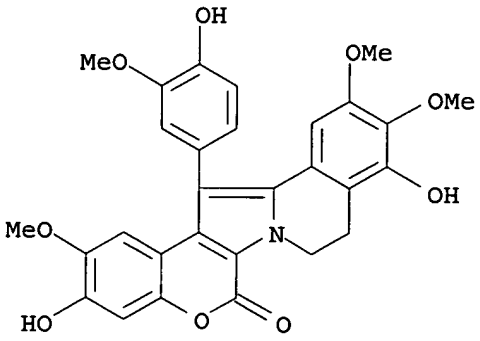
I

AB An Australian tunicate Didemnum sp. has yielded a new alkaloid lamellarin-S (I) along with the known compound lamellarin-K. Of this structure class, I is the first example that demonstrates atropisomerism, and its structure was secured by spectroscopic anal.

IT **149378-56-3P**, Lamellarin K **181423-71-2P**, Lamellarin S
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(alkaloid isolation and structural characterization and antimicrobial activity from Australian tunicate)

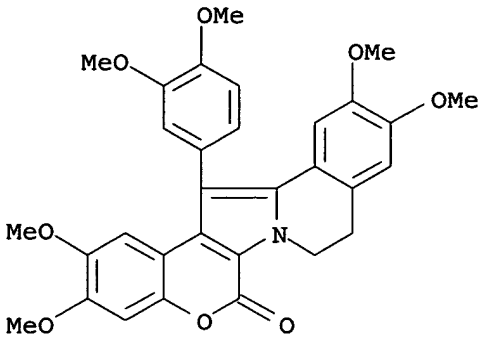
RN 149378-56-3 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



RN 181423-71-2 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dimethoxyphenyl)-8,9-dihydro-2,3,11,12-tetramethoxy- (9CI) (CA INDEX NAME)

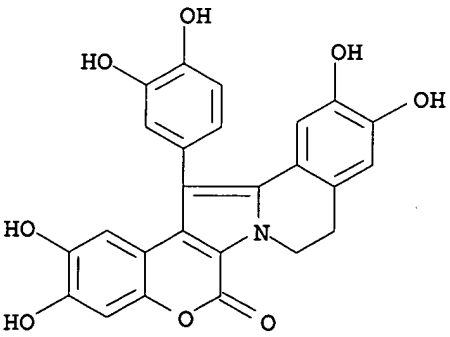


L4 ANSWER 51 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:120836 CAPLUS
DOCUMENT NUMBER: 124:225501
TITLE: ADEQUATE, a new set of experiments to determine the constitution of small molecules at natural abundance
AUTHOR(S): Reif, Bernd; Kock, Matthias; Kerssebaum, Rainer; Kang, Heonjoong; Fenical, William; Griesinger, Christian
CORPORATE SOURCE: Inst. Organische Chemie, Univ. Frankfurt, Frankfurt, D-60439, Germany
SOURCE: Journal of Magnetic Resonance, Series A (1996), 118(2), 282-5
CODEN: JMRAE2; ISSN: 1064-1858
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The ADEQUATE (adequate sensitivity double-quantum spectroscopy) method selectively correlates double-quantum coherence of two directly connected carbons to protons attached over one bond to one of the carbons. After HSQC-type coherence transfer from protons to carbons via a 1J(H,C) coupling, the magnetization is dephased during τ due to the 1J(H,C) coupling, and C,C double-quantum coherence is excited at the beginning of t1. The constitution of 5,6-dihydro-lamellarin H was analyzed by this method.

IT **173355-34-5**
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(determination of structure of; ADEQUATE, a new set of expts. to determine the
constitution of small mols. at natural abundance)

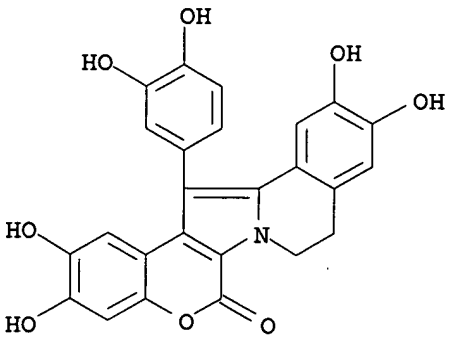
RN 173355-34-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dihydroxyphenyl)-8,9-dihydro-2,3,11,12-tetrahydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 52 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:55491 CAPLUS
DOCUMENT NUMBER: 124:145729
TITLE: Differentiation of HMBC two- and three-bond correlations: a method to simplify the structure determination of natural products
AUTHOR(S): Koeck, Matthias; Reif, Bernd; Fenical, William; Griesinger, Christian
CORPORATE SOURCE: Institut fuer Organische Chemie, J. W. Goethe-Universitaet, Frankfurt/Main, D-60439, Germany
SOURCE: Tetrahedron Letters (1996), 37(3), 363-66
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

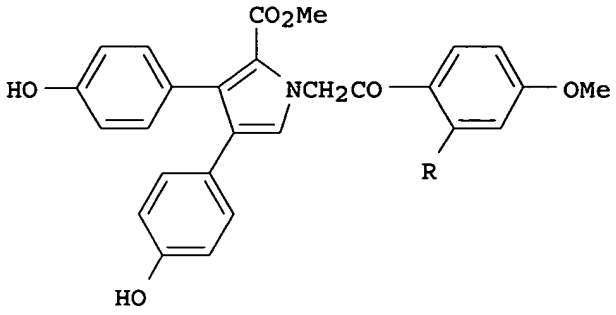
AB The structure elucidation of natural products, today, relies heavily on the application of proton-detected heteronuclear NMR expts. Perhaps the most useful of these methods is the HMBC experiment, which provides correlations between protons and carbons over two and three bonds. The application of the HMBC method for the direct translation of H, C correlations to yield bonding information is limited, however, by the fact that it does not distinguish between 2JCH and 3JCH correlations. Reported here is an application of the recently described 1,1-ADEQUATE experiment that yields only two bond H,C connectivities in H-C-C moieties and therefore allows the differentiation of HMBC two- and three-bond correlations. The method is demonstrated on a 14 mg sample of a new marine natural product, 5,6-dihydro lamellarin H.

IT **173355-34-5**
RL: PRP (Properties)
(differentiation of HMBC two- and three-bond correlations in structure determination of)
RN 173355-34-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 14-(3,4-dihydroxyphenyl)-8,9-dihydro-2,3,11,12-tetrahydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 53 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:626701 CAPLUS
DOCUMENT NUMBER: 121:226701
TITLE: Lamellarins O and P: new aromatic metabolites from the Australian marine sponge Dendrilla cactos
AUTHOR(S): Urban, Sylvia; Butler, Mark S.; Capon, Robert J.
CORPORATE SOURCE: Sch. Chemistry, Univ. Melbourne, Parkville, 3052, Australia
SOURCE: Australian Journal of Chemistry (1994), 47(10),

1919-24
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

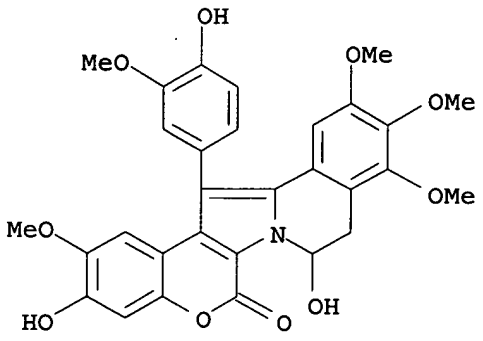


I

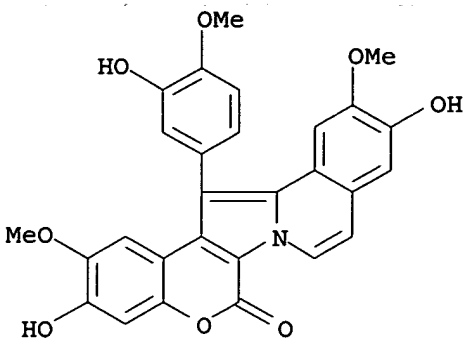
AB A specimen of D. cactos collected during trawling operations in Bass Strait, Australia, yielded 2 new alkaloids, lamellarin-O and lamellarin-P I (R = H, OH, resp.). Both these metabolites are examples of the lamellarin structure class, previously reported from tunicates and a mollusk; however, in these examples the pyrrole ring system is not fused to adjacent aromatic rings. The structures of both compds. were determined by spectroscopic anal. and partial synthesis.

IT **97614-62-5**, Lamellarin A **97614-63-6**, Lamellarin B **97614-64-7** **97614-65-8**, Lamellarin D **115982-19-9**, Lamellarin E **115982-20-2**, Lamellarin F **115982-21-3**, Lamellarin G **115982-22-4**, Lamellarin H **149355-75-9**, Lamellarin I **149355-76-0**, Lamellarin J **149378-56-3**, Lamellarin K **149378-57-4**, Lamellarin L **149378-58-5**, Lamellarin M **149379-26-0**, Lamellarin N
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(lamellarin structure)

RN 97614-62-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,8-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy-, (8R,14S)-rel- (9CI) (CA INDEX NAME)



RN 97614-63-6 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3-hydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)

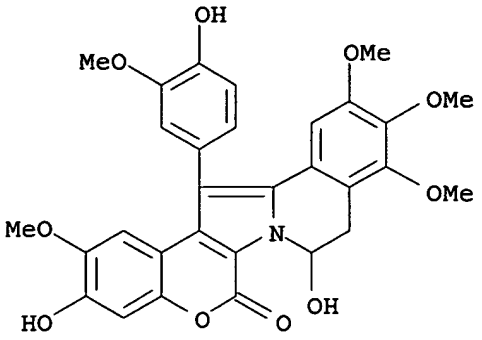


L4 ANSWER 54 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:513709 CAPLUS
DOCUMENT NUMBER: 119:113709
TITLE: Studies of Australian ascidians. I. Six new lamellarin-class alkaloids from a colonial ascidian, Didemnum sp
AUTHOR(S): Carroll, Anthony R.; Bowden, Bruce F.; Coll, John C.
CORPORATE SOURCE: Dep. Chem. Biochem., James Cook Univ. North Queensland, Townsville, 4811, Australia
SOURCE: Australian Journal of Chemistry (1993), 46(4), 489-501
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English

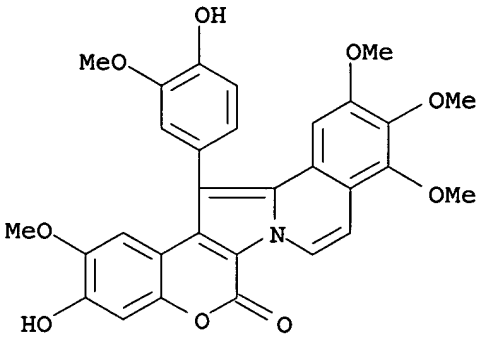
AB Six new polyarom. alkaloids, lamellarin I, J, K, L, and M and the triacetate of lamellarin N, and 4 known alkaloids, lamellarin A, B, and C and the triacetate of lamellarin D, were isolated from the marine ascidian Didemnum sp. The structures were deduced by high-field NMR spectroscopy including 13C-1H shift-correlated 2-dimensional NMR expts. and NOE measurements. The triacetates of lamellarin K and L were dehydrogenated in high yield by treatment with 2,3-dichloro-5,6-dicyano-1,4-benzoquinone in ethanol heated under reflux. The products obtained were identical in all respects to the triacetates of lamellarin M and N, resp. The re-isolation of lamellarins A-D, which were previously obtained from the prosobranch mollusk Lamellaria sp., lends further support for the idea that these mollusks sequester the compds. from ascidians as food sources.

IT **97614-62-5**, Lamellarin A **97614-63-6**, Lamellarin B
97614-64-7, Lamellarin C **97633-82-4**, Lamellarine D triacetate
RL: BIOL (Biological study)
(of Australian ascidian)

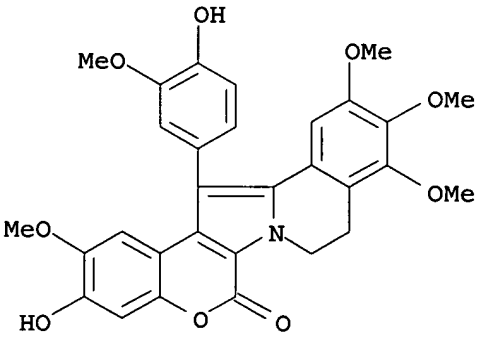
RN 97614-62-5 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,8-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy-, (8R,14S)-rel- (9CI) (CA INDEX NAME)



RN 97614-63-6 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3-hydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)

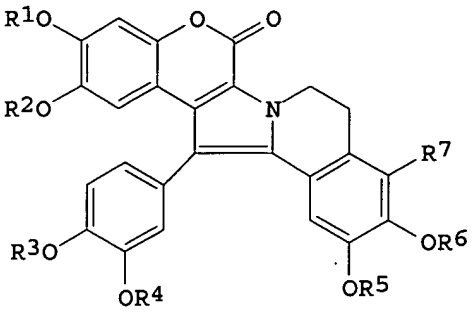


RN 97614-64-7 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3-hydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



RN 97633-82-4 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-bis(acetyloxy)-14-[4-(acetyloxy)-3-methoxyphenyl]-2,12-dimethoxy- (9CI) (CA INDEX NAME)

DOCUMENT NUMBER: 109:126123
TITLE: New alkaloids of the lamellarin class from the marine ascidian Didemnum chartaceum (Sluiter, 1909)
AUTHOR(S): Lindquist, Niels; Fenical, William; Van Duyne, Gregory D.; Clardy, Jon
CORPORATE SOURCE: Scripps Inst. Oceanogr., Univ. California, La Jolla, CA, 92093-0228, USA
SOURCE: Journal of Organic Chemistry (1988), 53(19), 4570-4
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:126123
GI



I, R^1=R^4=H, R^2=R^3=R^5=R^6=Me, R^7=OH

II, R^1=H, R^2-R^6=Me, R^7=OH

III, R^1=R^3=R^5=Me, R^2=R^4=R^6=R^7=H

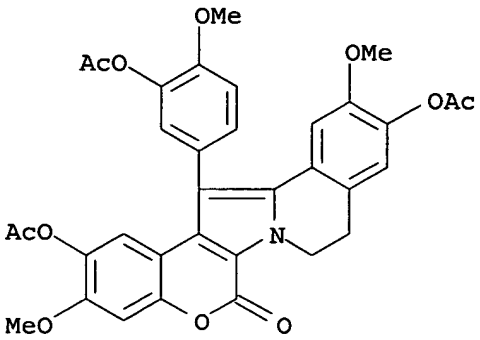
IV, R^1-R^7=H

AB Chemical investigation of the marine ascidian D. chartaceum from the Indian Ocean has resulted in the isolation of 4 new alkaloids of the recently reported lamellarin class. The structure of lamellarin E (I) was determined by spectroscopic and X-ray crystallog. methods. The structures of lamellarins F-H (II-IV, resp.) were elucidated by interpretation of NMR spectral data, which relied heavily on 1JC-H and 2-3JC-H correlation expts. Isolation of lamellarins E-H from D. chartaceum indicates that lamellarins A-D, isolated from the prosobranch mollusk Lamellaria sp., were most likely sequestered from an ascidian in the diet of this mollusk.

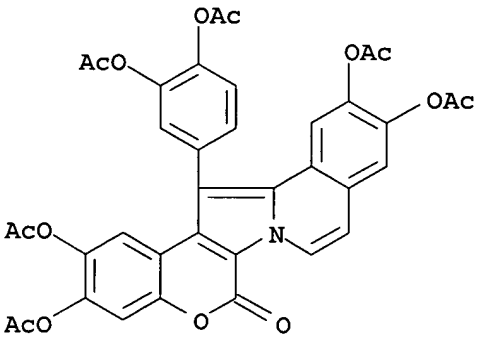
IT **115982-19-9 115982-20-2 115982-21-3**
115982-22-4 115982-24-6
RL: BIOL (Biological study)
(of marine ascidian, isolation and mol. structure of)

RN 115982-19-9 CAPLUS

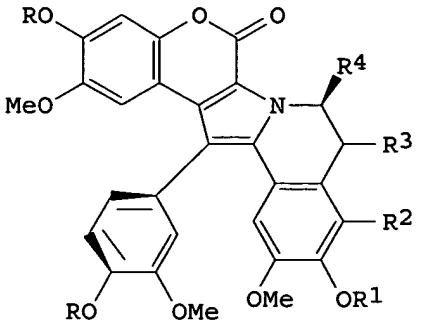
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,10-dihydroxy-14-(3-hydroxy-4-methoxyphenyl)-2,11,12-trimethoxy- (9CI) (CA INDEX NAME)



RN 115982-26-8 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 2,3,11,12-tetrakis(acetyloxy)-14-[3,4-bis(acetyloxy)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 56 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:520343 CAPLUS
DOCUMENT NUMBER: 103:120343
TITLE: Metabolites of the marine prosobranch mollusk Lamellaria sp
AUTHOR(S): Andersen, Raymond J.; Faulkner, D. John; He, Cun Heng; Van Duyne, Gregory D.; Clardy, Jon
CORPORATE SOURCE: Scripps Inst. Oceanogr., Univ. California, San Diego, La Jolla, CA, 92093, USA
SOURCE: Journal of the American Chemical Society (1985), 107(19), 5492-5
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I, R=R3=H, R1=Me, R2=MeO, R4=OH

II, R=H, R1=Me, R2=MeO, R3R4=unsatd. bond

III, R=R3=R4=H, R1=Me, R2=MeO

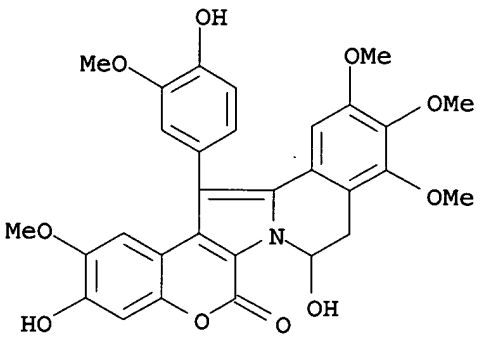
IV, R=R1=R2=H, R3R4=unsatd. bond

AB The marine prosobranch mollusk Lamellaria contains 4 aromatic metabolites, lamellarins A-D. The structure of lamellarin A (I) was determined by an x-ray crystallog. study and the structures of lamellarins B, C, and D (II, III, and IV, resp.) were assigned by interpretation of spectral data. I exists in solution as a 1:1 mixture of 2 geometrical isomers due to restricted rotation about the C1-C11 bond. Mol. mechanics calcns. revealed that the barrier to rotation was large (>600 kcal/mol).

IT **97614-62-5 97614-63-6 97614-64-7**
97614-65-8 97672-36-1
RL: BIOL (Biological study)
(of prosobranch mollusk, structure of)

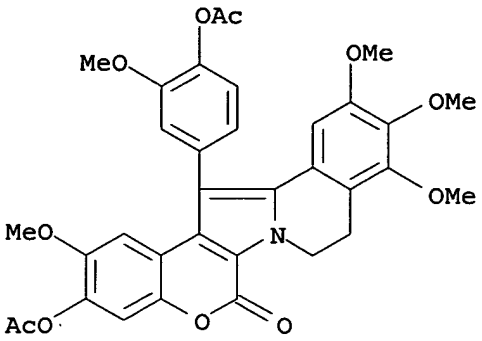
RN 97614-62-5 CAPLUS

CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 8,9-dihydro-3,8-dihydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy-, (8R,14S)-rel- (9CI) (CA INDEX NAME)

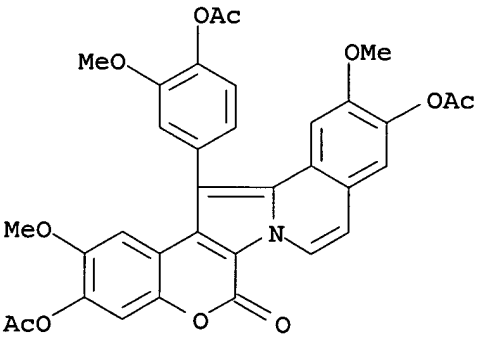


RN 97614-63-6 CAPLUS

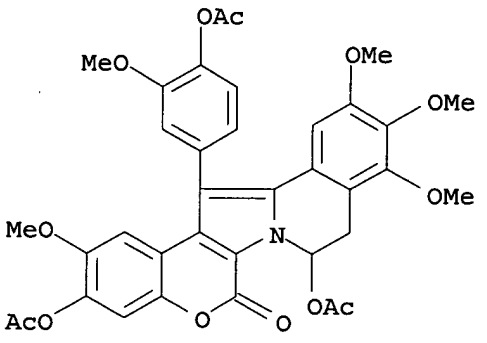
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3-hydroxy-14-(4-hydroxy-3-methoxyphenyl)-2,10,11,12-tetramethoxy- (9CI) (CA INDEX NAME)



RN 97633-82-4 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,11-bis(acetyloxy)-14-[4-(acetyloxy)-3-methoxyphenyl]-2,12-dimethoxy- (9CI) (CA INDEX NAME)



RN 97672-37-2 CAPLUS
CN 6H-[1]Benzopyrano[4',3':4,5]pyrrolo[2,1-a]isoquinolin-6-one, 3,8-bis(acetyloxy)-14-[4-(acetyloxy)-3-methoxyphenyl]-8,9-dihydro-2,10,11,12-tetramethoxy-, stereoisomer (9CI) (CA INDEX NAME)



=> d his

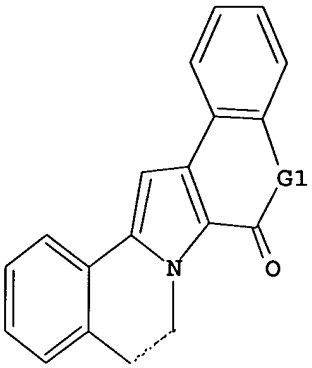
(FILE 'HOME' ENTERED AT 16:53:09 ON 13 APR 2006)

FILE 'REGISTRY' ENTERED AT 16:53:17 ON 13 APR 2006

```
L1                STRUCTURE UPLOADED
L2             12 S L1
L3            368 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 16:53:54 ON 13 APR 2006
L4             56 S L3

=> d l1
L1 HAS NO ANSWERS
L1                STR
```




```
G1 O,S,N


Structure attributes must be viewed using STN Express query preparation.

=>
```